

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



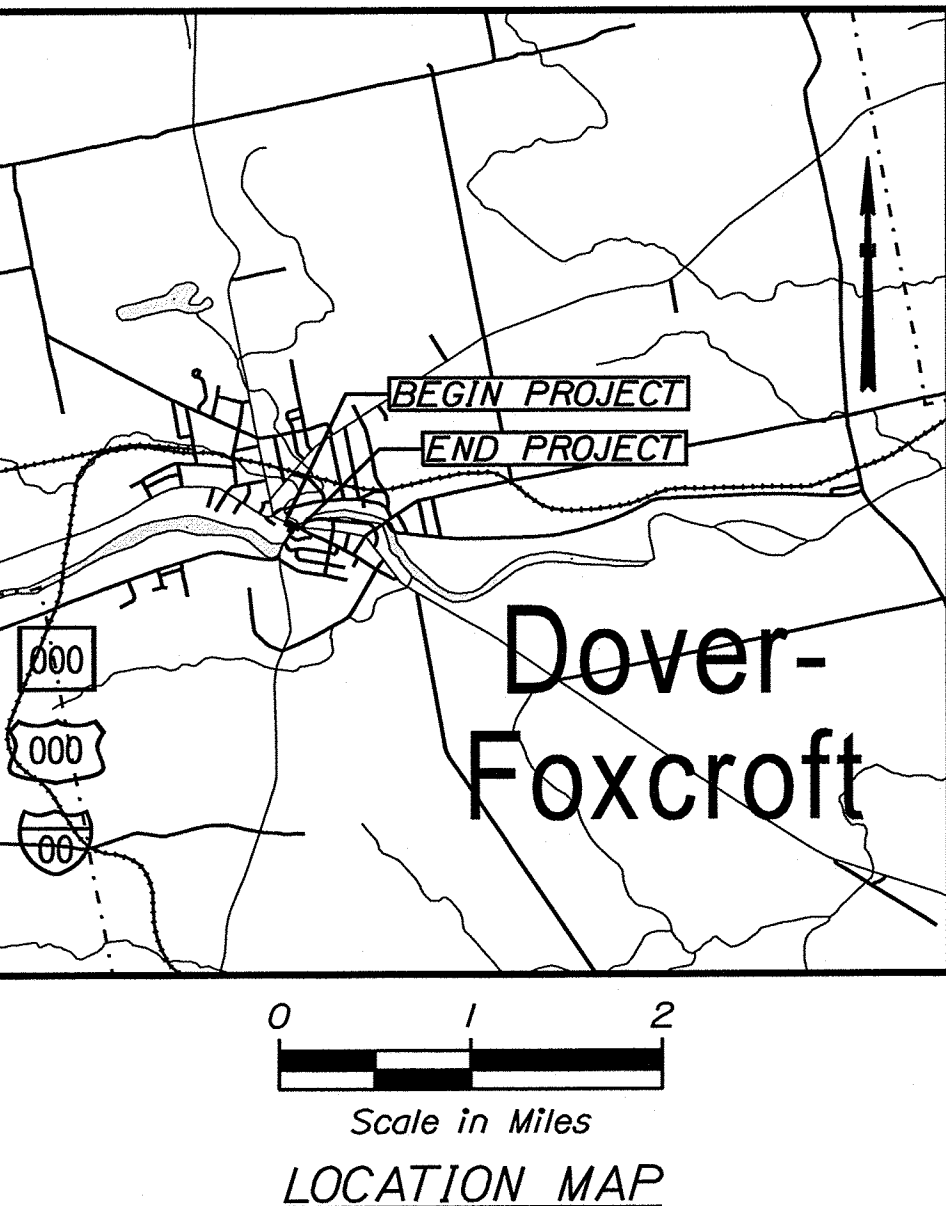
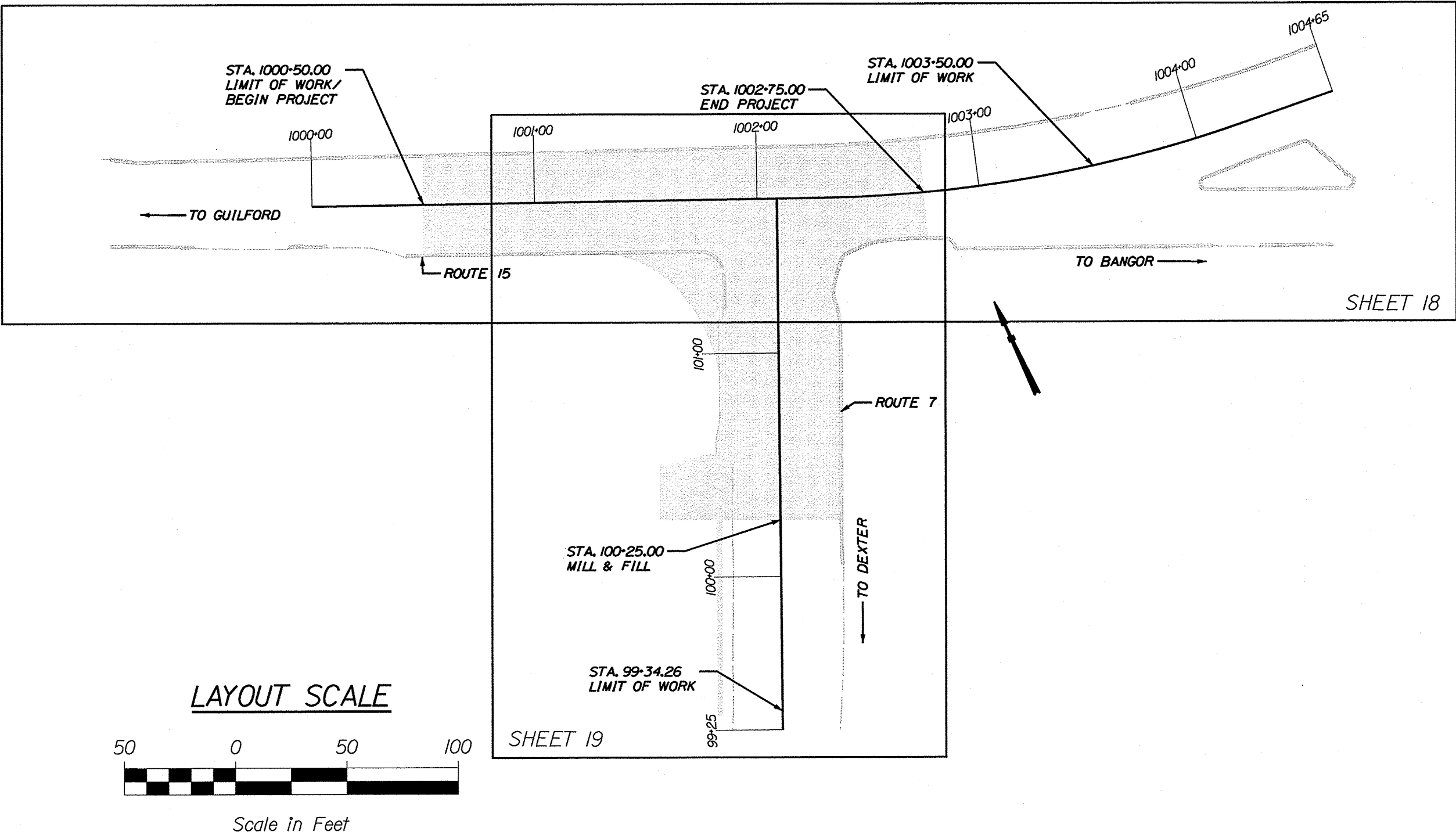
DOVER-FOXCROFT
PISCATAQUIS COUNTY
ROUTES 7 & 15
FEDERAL AID PROJECT NO. 2532900
PROJECT LENGTH: 0.12 MILES

PLAN LEGEND

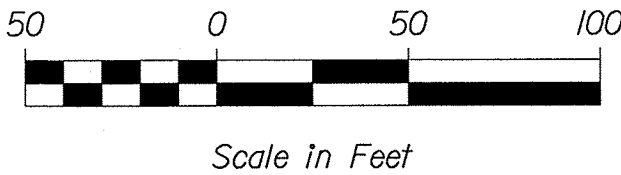
Town, County, State	_____	Catch Basins	▣ Existing ■ Proposed
Property Lines	-----	Manholes	○ Existing ● Proposed
R/W Lines-Existing	-----	Proposed Underdrain	-----
R/W Lines-Proposed	-----	Proposed Ditch	-----
Culvert-Existing	-----	Existing Ditch	-----
Culvert Proposed	-----	Utility Poles	⊕ Existing ♦ Proposed
Curbing	Existing Proposed	Fire Hydrants	⊙ Existing ⊙ Proposed
Type 1	-----	Existing Water Line	-----
Type 3	-----	Existing San. Sewer	-----
Type 5	-----	Existing San. Sewer Manhole	⊙
Outline of Bodies of Water	-----	Guardrail-Existing	-----
Exposed Bedrock	-----	Guardrail-Proposed	-----
Buildings	-----	Guardrail-Cable, Other	-----
Trees	☙ Conifer ☘ Deciduous	Centerline-Existing	-----
Tree Line	-----	Centerline-Proposed	-----
Clearing Limit Line	-----	Travelway-Existing	-----
Railroad	-----	Travelway-Proposed	-----
Boring	⊕ HB-XXX-###	Probe	⊕ P-#.X
Pavement Core	● PC-#	### = Depth	
Test Pit	■ TP-XXX-###	X = W (Weathered Rock)	
		R (Refusal)	
		NR (No Refusal)	

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LAYOUT SCALE



TRAFFIC DATA

	RT 15 E	RT 15 W	RT 7 SW
Current (2025) AADT	6340	8930	5720
Future (2037) AADT	6750	9470	6060
DHV - % of AADT	10%	10%	9%
Design Hour Volume	669	979	572
% Heavy Trucks (AADT)	5%	5%	5%
% Heavy Trucks (DHV)	2%	2%	4%
Directional Distribution (DHV)	54%	52%	51%
18-kip Equivalent P 2.0	132	217	140
18-kip Equivalent P 2.5	126	207	133
Design Speed (mph)	25	25	25
Corridor Priority	2	2	3

PROJECT LOCATION:

LOCATED AT THE INTERSECTION OF ROUTE 7 AND 15 IN THE TOWN OF DOVER-FOXCROFT.

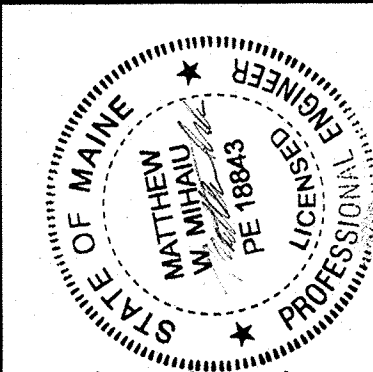
PROGRAM AREA:

HIGHWAY PROGRAM

SCOPE OF WORK:

SAFETY IMPROVEMENTS

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
	<i>[Signature]</i>	12-6-24
	COMMISSIONER	12-6-2024
	CHIEF ENGINEER	



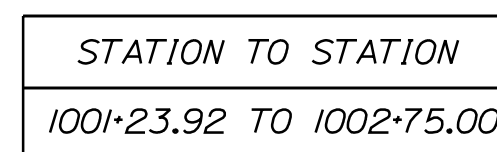
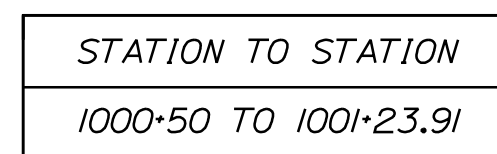
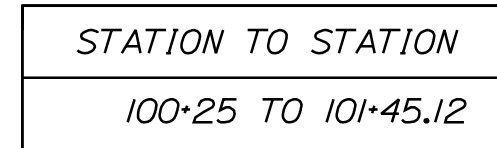
SIGNATURE	P.E. NUMBER	DATE
<i>[Signature]</i>	18843	11/23/24

PROJECT INFORMATION	PROGRAM	DESIGNER	CONSULTANT	PROJECT RESIDENT	CONTRACTOR	PROJECT COMPLETION DATE
HIGHWAY PROGRAM	L. ROWE	M. MHU				

DOVER-FOXCROFT ROUTES 7 & 15	TITLE SHEET
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SHEET NUMBER
1
OF 29

WIN 25329.00 FEDERAL AID PROJECT NO. 2532900



- NOT TO SCALE

ROUTE 7 CROSS SLOPES				
STATION	LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
100+00				
100+10				
100+25	-1.0%	-1.0%	-0.9%	-0.9%
100+30	-1.0%	-1.0%	-0.9%	-0.9%
100+40	-1.0%	-1.0%	-0.7%	-0.7%
100+50	-1.0%	-1.0%	-0.5%	-0.5%
100+60	-1.0%	-1.0%	-0.4%	-0.4%
100+70	-1.0%	-1.0%	-0.4%	-0.4%
100+80	-1.0%	-1.0%	-0.3%	-0.3%
100+90	-1.0%	-1.0%	-0.4%	-0.4%
101+00	-1.0%	-1.0%	0.0%	0.0%
101+10	-1.0%	-1.0%	0.3%	0.3%
101+20	-1.0%	-1.0%	0.6%	0.6%
101+30	-1.0%	-1.0%	0.9%	0.9%
101+40	-1.0%	-1.0%	0.6%	0.6%
101+45.12	-1.0%	-1.0%	0.4%	0.4%

ROUTE 15 CROSS SLOPES				
STATION	LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
1000+00				
1000+40				
1000+50	-3.9%	-3.9%	-2.6%	-2.6%
1000+60	-3.6%	-3.6%	-2.7%	-2.7%
1000+70	-3.3%	-3.3%	-2.7%	-2.7%
1000+80	-2.9%	-2.9%	-2.7%	-2.7%
1000+90	-2.5%	-2.5%	-2.8%	-2.8%
1001+00	-2.1%	-2.1%	-2.8%	-2.8%
1001+10	-1.9%	-1.1%	-2.8%	-2.8%
1001+20	-1.6%	-1.6%	-2.8%	-2.8%
1001+30	-1.3%	-1.3%	-2.8%	-2.8%
1001+40	-1.3%	-1.3%	-3.1%	-3.1%
1001+50	-1.3%	-1.3%	-3.4%	-3.4%
1001+60	-1.0%	-1.0%	-3.6%	-3.6%
1001+70	-1.0%	-1.0%	-3.9%	-3.9%
1001+80	-1.0%	-1.0%	-4.1%	-4.1%
1002+45	-1.0%	-1.0%	-4.1%	-4.1%
1002+50	-1.0%	-1.0%	-3.9%	-3.9%
1002+60	-1.0%	-1.0%	-3.9%	-3.9%
1002+70	-0.7%	-0.7%	-4.1%	-4.1%
1002+75	-0.6%	-0.6%	-4.4%	-4.4%

GUTTER ELEVATIONS				
ROUTE 7 LT			ROUTE 15 RT	
STA	ELEV		STA	ELEV
100+30	350.27		1001+30	354.57
100+40	350.50		1001+40	354.48
100+50	350.75		1001+50	354.31
100+60	351.04		1001+60	354.01
100+70	351.36			
100+80	351.70			
100+90	352.06			
101+00	352.43			
101+10	352.80			
101+20	353.16			

STATE OF MAINE
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2532900

WIN
25329.00

HIGHWAY PLANS

DOVER-FOXCROFT
ROUTES 7 & 15
CROSS SLOPES

SHEET NUMBER
3
OF 29

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN-DETAILED
DESIGN-DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

BY
T. WHITE

DATE
AUG 2024

SIGNATURE

P.E. NUMBER

DATE

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.202	REMOVING PAVEMENT SURFACE	570	SY
203.20	COMMON EXCAVATION	570	CY
203.21	ROCK EXCAVATION	10	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	300	CY
403.2081	12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	170	T
403.209	HOT MIX ASPHALT 9.5 MM (INCIDENTALS)	47	T
403.211	HOT MIX ASPHALT (SHIMMING)	30	T
403.2131	12.5 MM POLYMER MODIFIED HMA BASE	421	T
409.15	BITUMINOUS TACK COAT - APPLIED	198	G
411.09	UNTREATED AGGREGATE SURFACE COURSE	60	CY
603.159	12 INCH CULVERT PIPE OPTION III	160	LF
604.18	ADJUSTING MANHOLE OR CATCH BASIN TO GRADE	1	EA
604.182	CLEAN EXISTING CATCH BASIN AND MANHOLE	1	EA
604.252	CATCH BASIN TYPE A5-C	1	EA
605.09	6 INCH UNDERDRAIN TYPE B	68	LF
608.07	PLAIN CONCRETE SIDEWALK	298	SY
608.26	CURB RAMP DETECTABLE WARNING FIELD	54	SF
609.11	VERTICAL CURB TYPE I	150	LF
609.12	VERTICAL CURB TYPE I - CIRCULAR	5.6	LF
609.221	TERMINAL CURB TYPE I	57	LF
609.222	TERMINAL CURB TYPE I - CIRCULAR	22	LF
615.07	LOAM	6	CY
618.14	SEEDING METHOD NUMBER 2	0.25	UN
619.12	MULCH	0.25	UN
626.11	PRECAST CONCRETE JUNCTION BOX	1	EA
626.21	METALLIC CONDUIT	100	LF
626.22	NON-METALLIC CONDUIT	100	LF
626.38	GROUND MOUNTED CABINET FOUNDATION	1	EA
626.501	SPREAD FOOTING FOUNDATION	12	CY
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	1860	LF
627.75	WHITE OR YELLOW PAVEMENT & CURB MARKING	235	SF
627.78	TEMPORARY 4 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	5580	LF
629.05	HAND LABOR, STRAIGHT TIME	10	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	10	HR
631.32	CULVERT CLEANER (INCLUDING OPERATOR)	10	HR
634.160	HIGHWAY LIGHTING	1	LS
634.2091	ORNAMENTAL CROSSWALK LIGHT STANDARD	2	EA
634.210	CONVENTIONAL LIGHT STANDARD	4	EA
639.19	FIELD OFFICE TYPE B	1	EA
643.21	NON-INVASIVE - STOP LINE; EAST MAIN STREET & SOUTH STREET	1	LS
643.71	TRAFFIC SIGNAL MODIFICATION; EAST MAIN STREET & SOUTH STREET	1	LS
643.71	TRAFFIC SIGNAL MODIFICATION; MAIN STREET & LINCOLN STREET	1	LS
643.91	MAST ARM POLE (30' MAST ARM)	1	EA
643.91	MAST ARM POLE (55' MAST ARM)	1	EA
643.97	WOOD POLES WITH GUYS AND SPAN WIRE	7	EA
645.106	DEMOUNT REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGN	1	EA
652.33	DRUM	25	EA
652.34	CONE	50	EA
652.35	CONSTRUCTION SIGNS	500	SF
652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	90	CD
652.38	FLAGGER	1200	HR
652.41	PORTABLE CHANGEABLE MESSAGE SIGN	3	EA
654.34	POINT TO POINT WIRELESS LINK	1	EA
654.351	CONNECTED ROADSIDE UNIT (RSU)	1	EA
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS
812.162	ADJUST SEWER MANHOLE TO GRADE	4	EA
202.17	REMOVING EXISTING STRUCTURAL CONCRETE	6	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	150	CY
403.2131	12.5 MM POLYMER MODIFIED HMA BASE	5	T
502.565	CONCRETE FILL	6	CY
602.30	FLOWABLE CONCRETE FILL	10	CY
652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	15	CD
652.38	FLAGGER	720	HR
801.03	TEST PITS	3	EA
822.3252	6" TAPPING SLEEVE AND VALVE	1	EA
822.3302	6" CLASS 52 CLDI WATERMAIN	60	LF
822.337	6" INSERTION VALVE	1	EA
822.363	12 INCH CLASS 52 DUCTILE IRON PIPE	250	LF
823.31	12 INCH GATE VALVE	5	EA
823.32	10 INCH GATE VALVE	1	EA
823.33	6 INCH GATE VALVE WITH BOX	4	EA
824.30	FIRE HYDRANT	1	EA
825.311	3/4 INCH CORPORATION	3	EA
825.312	3/4 INCH CURB STOP	3	EA
825.41	3/4 COPPER SERVICE	60	LF
825.5411	TEMPORARY WATER MAIN	1	LS
827.301	ROCK EXCAVATION WATER MAIN	10	CY
827.302	UNSUITABLE SOIL EXCAVATION - BELOW GRADE	10	CY
827.331	TRENCH INSULATION	30	SY

EARTHWORK SUMMARY

COMMON EXCAVATION FOR ESTIMATE

COMMON EXCAVATION (FROM MODEL OR PLANS)	565.53	CY
GRUBBING IN FILL	16.83	CY
CULVERT INLET AND OUTLET DITCHES	0	CY

TOTAL COMMON EXCAVATION 582.36 CY

FILL FOR BORROW CALCULATIONS

COMMON FILL (FROM MODEL OR PLANS)	27.3	CY
GRUBBING IN FILL	16.83	CY

TOTAL FILL 44.13 CY

ROCK EXCAVATION FOR ESTIMATE

ROCK EXCAVATION (FROM CROSS SECTIONS)	10	CY
ROCK EXCAVATION (BOULDERS)	0	CY

TOTAL ROCK EXCAVATION 10 CY

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

ALL DEDUCTIONS:		
GRUBBING IN CUT	14.31	CY
GRUBBING IN FILL	16.83	CY
PAVEMENT SALVAGE (CUT & FILL)	230.88	CY

TOTAL DEDUCTIONS 262.02 CY

TOTAL AVAILABLE COMMON EXCAVATION (-) TOTAL DEDUCTIONS	320.34	CY
TOTAL AVAILABLE STRUCTURAL EXCAVATION (UNDERDRAIN ONLY)	22	CY
RIPRAP EXCAVATION		CY

TOTAL AVAILABLE NON-ROCK EXCAVATION 342.34 CY

COMPUTATION OF WASTE STORAGE & WASTE MATERIAL

TOTAL AVAILABLE WASTE STORAGE AREA (FROM CROSS SECTIONS)	0	
GRUBBING IN CUT	14.31	CY
GRUBBING IN FILL	16.83	CY
TOTAL WASTE MATERIAL	31.14	CY

TOTAL WASTE MATERIAL TO BE UTILIZED* 0 CY

TOTAL WASTE MATERIAL TO BE WASTED 31.14 CY

COMPUTATION FOR SURPLUS MATERIAL OR COMMON BORROW FOR ESTIMATE

TOTAL AVAILABLE NON-ROCK EXCAVATION	342.34	x 0.90	=	308.106	CY
TOTAL AVAILABLE ROCK EXCAVATION	10	x 1.30	=	13	CY
TOTAL AVAILABLE STRUCTURAL ROCK EXCAVATION		x 1.30	=	0	CY
TOTAL WASTE MATERIAL TO BE UTILIZED	0	x 0.90	=	0	CY

TOTAL AVAILABLE EXCAVATION 321 CY

BORROW NEEDED = TOTAL FILL (-) TOTAL AVAILABLE EXCAVATION 0 CY

IF NO BORROW IS NEEDED, SURPLUS MATERIAL = AVAILABLE EXCAVATION (-) TOTAL FILL, (+)
TOTAL WASTE MATERIAL TO BE WASTED 308 CY

SURPLUS MATERIAL 308 CY

GRANULAR BORROW IN LOW WET AREAS	0	CY
GRANULAR BORROW TO MAINTAIN TRAFFIC	0	CY
BORROW NEEDED (-) REQUIRED GRANULAR BORROW WITHIN FILL	0	CY

COMMON BORROW 0 CY

STATE OF MAINE
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2532900

WIN
25329.00

HIGHWAY PLANS

DOVER-FOXCROFT
ROUTES 7 & 15

ESTIMATED QUANTITIES

SHEET NUMBER

4

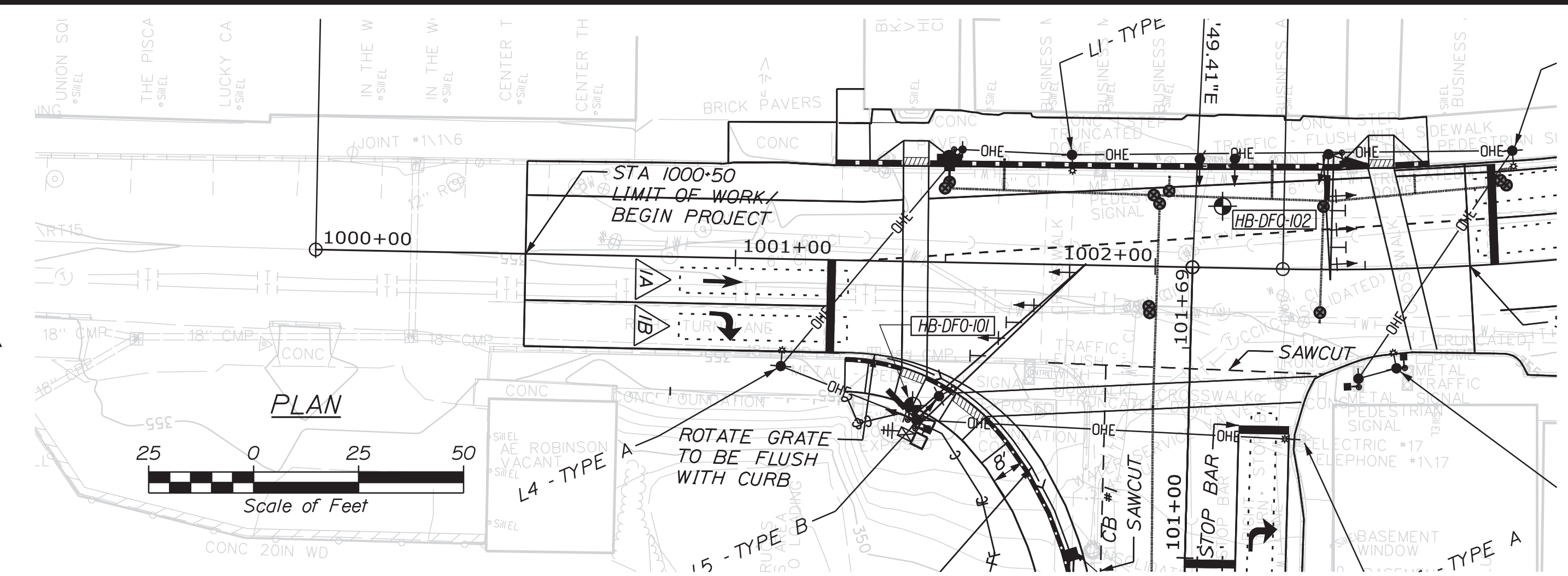
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GENERAL NOTES

1. GRUBBING IN FILL AREAS HAS BEEN SHOWN ON THE CROSS SECTIONS AND THE QUANTITIES NOTED. THESE LIMITS ARE APPROXIMATE AND HAVE BEEN USED FOR ESTIMATING PURPOSES ONLY. ACTUAL GRUBBING LIMITS MAY VARY BASED ON FIELD CONDITIONS AS DIRECTED BY THE RESIDENT.
2. PRIOR TO REMOVING ANY PAVEMENT OR PLACING ANY SHIM PAVEMENT, THE ROADWAY WILL BE INSPECTED FOR POSSIBLE SUBSURFACE BOULDERS, WHICH WILL BE REMOVED AS DIRECTED BY THE RESIDENT. PAVEMENT WILL BE MADE UNDER APPROPRIATE CONTRACT RENTAL ITEMS. BACKFILL WILL BE PLACED TO SUBGRADE WITH MATERIAL CONSISTENT WITH THE SURROUNDING MATERIAL. AGGREGATE SUBBASE COURSE
3. ALL INSLOPE AND DITCHES IN CUT AREAS SHALL BE GRADED AS SHOWN ON THE TYPICALS OR FLATTER, OR AS DIRECTED BY THE RESIDENT.
4. ALL WASTE MATERIAL NOT USED ON THE PROJECT SHALL BE DISPOSED OF OFF THE PROJECT IN ACCEPTABLE WASTE AREAS REVIEWED BY THE RESIDENT. GRADING, SEEDING AND MULCHING OF WASTE AREAS SHALL BE CONSIDERED INCIDENTAL.
5. EXISTING INSLOPES IN PROPOSED FILL AREAS SHALL BE BENCHED BY EXCAVATING STEPS OF SUFFICIENT WIDTH TO PERMIT PLACING AND COMPACTING THE FILL MATERIAL ALONG WITH THE MATERIAL REMOVED.
6. COMMERCIAL PAVED ENTRANCES SHALL BE CONSTRUCTED WITH 3 INCHES OF HOT MIX ASPHALT AND 11 INCHES OF AGGREGATE SUBBASE COURSE GRAVEL UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE RESIDENT.
7. ANY NECESSARY CLEANING OF EXISTING PAVEMENT PRIOR TO PAVING (OR MILLING) SHALL BE INCIDENTAL TO THE RELATED PAVING (OR MILLING) ITEMS. THIS INCLUDES KILLING AND REMOVAL OF ALL VEGETATIVE MATTER
8. ALL EXISTING PAVED SHOULDERS AND WIDENINGS SHALL BE RESURFACED AS DIRECTED BY THE RESIDENT.
9. PRIOR TO SURFACE PAVING, EXISTING CULVERTS TO REMAIN SHALL BE CLEANED AS DIRECTED BY THE RESIDENT. PAYMENT WILL BE MADE UNDER STANDARD SPECIFICATIONS ITEM 631.32, CULVERT CLEANER (INCLUDING OPERATOR.
10. EXISTING CULVERTS AND CATCH BASINS WILL BE CLEANED AS DIRECTED BY THE RESIDENT UNDER THE APPROPRIATE PAY ITEMS.
11. NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED OR PLUGGED WITHOUT PRIOR APPROVAL OF THE RESIDENT.
12. FLAT TOPS FOR CATCH BASINS ARE NOT ALLOWED UNLESS NOTED ON THE PLANS OR DIRECTED BY THE RESIDENT.
13. PLASTIC END CAPS SHALL BE PLACED ON THE INLET END OF ALL DEAD-END 6-INCH TYPE B UNDERDRAIN AND SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM.
14. ANY NECESSARY CUTTING OF EXISTING PIPES TO FIT IN AREAS OF PROPOSED CATCH BASINS WILL NOT BE PAID FOR SEPARATELY AND WILL BE CONSIDERED INCIDENTAL TO STANDARD SPECIFICATIONS SECTION 604, MANHOLES, INLETS AND CATCH BASINS.
15. ANY NECESSARY CUTTING OF EXISTING CATCH BASINS TO ALLOW FOR PROPOSED PPE CONNECTIONS WILL NOT BE PAID FOR SEPARATELY AND WILL BE CONSIDERED INCIDENTAL TO STANDARD SPECIFICATIONS SECTION 603, PIPE CULVERTS AND STORM DRAINS OR STANDARD SPECIFICATIONS SECTION 605, UNDERDRAINS.
16. EXISTING ABANDONED WATER MAINS BROKEN BY THE CONTRACTOR DURING CONSTRUCTION SHALL HAVE THE ENDS PLUGGED WITH BRICK AND MORTAR. COST FOR ALL LABOR AND MATERIAL WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO DIRECT PAYMENT WILL BE MADE.
17. ALL TYPE A CATCH BASINS PLACED ON A TYPE 1 CIRCULAR CURB SHALL HAVE THE CURB INLET CUT AT THE SAME RADIUS AS ADJACENT CIRCULAR CURB. PAYMENT SHALL BE INCIDENTAL TO STANDARD SPECIFICATIONS SECTION 604, MANHOLES INLETS AND CATCH BASINS.
18. LOAM HAS BEEN ESTIMATED FOR DISTURBED LAWN AREAS. ACTUAL PLACEMENT OF THE LOAM SHALL BE AS NOTED ON THE PLANS OR DESIGNATED BY THE RESIDENT.
19. UNLESS OTHERWISE NOTED SEEDING METHOD NO. 1 SHALL BE UTILIZED ON ALL LAWNS AND DEVELOPED AREAS; SEEDING METHOD NO. 2 SHALL BE UTILIZED ON ALL OTHER AREAS.
20. LOAM SHALL BE PLACED TO A NOMINAL DEPTH OF 4 INCHES IN LAWN AREAS AND 2 INCHES IN ALL OTHER AREAS UNLESS OTHERWISE NOTED OR DIRECTED.
21. ANY BASE PAVEMENT NOT SURFACED BEFORE WINTER WILL REQUIRE TEMPORARY PAVEMENT MARKINGS OF PAINT, BOTH YELLOW CENTERLINE AND WHITE EDGE LINES AND WILL BE CONSIDERED PART OF STANDARD SPECIFICATIONS ITEM 627.78, TEMPORARY PAVEMENT MARKING LINE, WHITE OR YELLOW.
22. ANY DAMAGE TO THE SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT. ALL WORK, EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE.
23. GEOTECHNICAL INFORMATION FURNISHED OR REFERRED TO IN THE BID DOCUMENTS IS FOR THE USE OF THE BIDDERS. NO ASSURANCE IS GIVEN THAT THE INFORMATION OR INTERPRETATIONS WILL BE REPRESENTATIVE OF THE ACTUAL SUBSURFACE CONDITIONS THROUGHOUT THE CONSTRUCTION SITE. AMINEDOT WILL NOT BE RESPONSIBLE FOR ANY INTERPETATIONS OR CONCLUTIONS DRAWN FROM THE GEOTECHNICAL INFORMATION. THE BORING LOGS PROVIDED IN THE BID DOCUMENTS (IF ANY) PRESENT FACTUAL AND INTERPRETIVE SUBSURFACE INFORMATION COLLECTED AT DISCRETE LOCATIONS. DATA PROVIDED MAY NOT BE REPRESENTATIVE OF THE SUBSURFACE INFORMATION COLLECTED AT DISCRETE LOCATIONS. DATA PROVIDED MAY NOT BE REPRESENTATIVE OF THE SUBSURFACE CONDITIONS BETWEEN BORING LOCATIONS.
24. AREAS ON THE PROJECT REQUIRING FILL WILL COME FROM SUITABLE SITES SUCH AS EXCAVATION, DITCH AND INSLOPE OR EQUIPMENT RENTAL AREAS.
25. ESTIMATED QUANTITIES FOR REQUIRED STRUCTURAL EARTH EXCAVATION, DRAINAGE AND MINOR STRUCTURES ARE INFORMATIONAL ONLY AND REPRESENT THE APPROXIMATE MINIMUM QUANTITY REQUIRED TO INSTALL DRAINAGE STRUCTURES. ADDITIONAL EXCAVATION FOR THE CONTRACTOR'S CONVENIENCE OR TO COMPLY WITH BACKSLOPING REQUIREMENTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THE RELATED DRAINAGE ITEMS.
26. NO SEPARATE PAYMENT FOR SUPERINTENDENT OR FOREMAN WILL BE MADE FOR THE SUPERVISION OF EQUIPMENT AND LAYOUT OF WORK BEING PAID FOR UNDER THE EQUIPMENT RENTAL ITEMS.

27. FINAL STRIPING FOR THE PROJECT SHALL BE DONE BY THE CONTRACTOR PER THE STRIPING LAYOUT IN THE CONTRACT DOCUMENTS OR AS PROVIDED BY THE DEPARTMENT. PAYMENT SHALL BE MADE UNDER APPROPRIATE CONTRACT ITEMS.
28. THE CONTRACTOR WILL PLACE APPROPRIATELY-MARKED STAKES AT THE FOLLOWING LOCATIONS ON THE PROJECT: STRIPING PATTERN CHANGES, CROSS-SLOPE CHANGES, AND EVERY 500 FEET FOR STATIONING. THE CONTRACTOR WILL PAINT EVERY FULL (100 FEET) ON THE EXISTING ROADWAY AND WILL TRANSFER THE PAINTED STATIONING THROUGH ALL INTERMEDIATE LIFTS (NOT SURFACE). APPROPRIATELY-SIZED STRIPING PATTERN CHANGES WILL BE PAINTED ON SURFACE. STATIONING CONTROL MUST BE PLACED BEFORE WORK CAN COMMENCE. CROSS-SLOPE AND STRIPING CHANGE CONTROLS MUST BE PLACED BEFORE PAVING CAN COMMENCE.
29. ALL HMA FOR PATCHING AROUND ADJUSTED, ALTERED, OR REBUILT UTILITY STRUCTURES SHALL BE A 9.5 MM OR 12.5 MM MAINEDOT APPROVED MIX DESIGN. EXCLUDING WATER AND GAS GATE VALVES, THE CONTRACTOR SHALL SAW CUT THE EXISTING PAVEMENT FOR THE PATCH AT LEAST TWO FEET AWAY FROM THE NEAREST EDGE OF THE STRUCTURE. THE CONTRACTOR SHALL PLACE HMA IN LIFTS OF 2 INCHES OR LESS TO MATCH THE EXISTING PAVEMENT DEPTH OR A MAXIMUM OF 6 INCHES, AS DIRECTED BY THE RESIDENT, AND COMPACT THE HMA USING A MINIMUM OF A 150-POUND PLATE COMPACTOR. HMA FOR PATCHING AROUND ADJUSTED, ALTERED, OR REBUILT UTILITY STRUCTURES IS CONSIDERED INCIDENTAL TO THE RESPECTIVE PAY ITEM FOR ADJUST, ALTER, OR REBUILD UTILITY STRUCTURE.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION					
	2532900		WIN 25329.00		
				HIGHWAY PLANS	
DOVER-FOXCROFT ROUTES 7 & 15		PROJ. MANAGER		BY	DATE
		CHECKED-REVIEWED	DESIGN-DETAILED		
GENERAL NOTES		DESIGN-DETAILED	C. RUSSELL	T. WHITE	AUG. 2024
		REVISIONS 1			
		REVISIONS 2			
		REVISIONS 3			
		REVISIONS 4			
		FIELD CHANGES			
SHEET NUMBER					
6					
OF 29					

[illegible]

5. Do not proceed with dependent work until any such discrepancy is resolved to the satisfaction of the Resident.

6. Concrete to be Class LP with $f'c = 5,000$ PSI.

7. Bedrock removal may be necessary for the construction of the spread footing foundations. Bedrock removal shall be done in accordance with Standard Specification Section 203.042.

8. Foundation sizes are designed based on estimated loading conditions and are subject to change based on the design of the above-ground components and the actual loading conditions at the top of each foundation submitted by the Contractor in accordance with Standard Specification 626.034. Any increase in foundation size based on submitted loading conditions shall be paid for at the unit price bid by the Contractor. Any reduction in foundation size shall be to the benefit of the Department at the unit price bid by the Contractor.

SPREAD FOOTING FOUNDATIONS													
	Footing Dimensions			Shaft Dimensions		Reinforcing Steel - Footing			Reinforcing Steel - Shaft			Spiral Bar Spacing	
	B1	B2	T	H	D	F1	F2	S2	R1	R2	S1	D1 (in)	
	Length (feet)	Length (feet)	Footing Height (feet)	Shaft Height (feet)	Shaft Diameter (feet)	Horizontal Rebars Quantity	Horizontal Rebars Size	Maximum Spacing (inches)	Vertical Rebars Quantity	Vertical/L-Bar Size	Spiral Rebars Size	0 ft to H ft	
	Mast Arm												
Northeast (30' Arm)	7.0	7.0	2.0	5.0	3.0	32	#5	12	15	#8	#5	4	
Southwest (50' Arm)	8.5	8.5	2.0	5.0	3.0	36	#5	12	15	#8	#5	4	

CONSTRUCTION NOTES - HIGHWAY LIGHTING

1.

SCOPE OF WORK - INSTALL HIGHWAY LIGHTING AND RELATED WORK AS SHOWN OR NOTED IN THESE PLANS AND SPECIAL PROVISIONS. INSTALL NEW 240V POWER SERVICE,(LOCATED INSIDE TRAFFIC SIGNAL CONTROLLER CABINET, ALL EQUIPMENT SHALL BE DEAD FRONT) AND SERVICE DISCONNECT ENCLOSURE FOR NEW LIGHTING.FURNISH AND INSTALL #8 AWG AERIAL WIRING WITH BUILT-IN MESSENGER CABLE, FOUNDATIONS (WHERE APPLICABLE), DECORATIVE L.E.D. LUMINAIRES ON WOODEN POLES, AND RELATED HARDWARE.
2.

ALL EXISTING HIGHWAY LIGHTING SHALL REMAIN ACTIVE (TO THE BEST OF THE CONTRACTOR'S ABILITY) UNTIL THE NEW LIGHTING INSTALLATIONS ARE APPROVED BY MAINEDOT TO BE ACTIVATED.
3.

EXISTING LUMINAIRES NOTED FOR REMOVAL SHALL BE CAREFULLY REMOVED AFTER ACTIVATION OF THE NEW LIGHTING INSTALLATIONS AND SHALL BE DELIVERED TO AND CAREFULLY UNLOADED AT A LOCATION TO BE DESIGNATED BY THE MUNICIPALITY. PAYMENT FOR REMOVAL, TRANSPORT, DELIVERY AND UNLOADING LUMINAIRES WILL BE INCIDENTAL TO ITEM 634.160. IN THE EVENT THE MUNICIPALITY DOES NOT WANT THE EXISTING LUMINAIRES, THE CONTRACTOR SHALL DISPOSE OF THEM AND PAYMENT FOR DISPOSAL SHALL BE INCIDENTAL TO ITEM 634.160.
4.

ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO APPLICABLE PROVISIONS OF THE CURRENT EDITIONS OF THE MAINE DEPARTMENT OF TRANSPORTATION (MAINEDOT) STANDARD SPECIFICATIONS AND STANDARD DETAILS, NATIONAL ELECTRICAL CODE (N.E.C.) AND ANY REQUIREMENTS OF THE POWER COMPANY.
5.

THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO ENSURE AWARENESS OF SITE CONDITIONS THAT COULD AFFECT THE BID.
6.

THE CONTRACTOR SHALL FIELD VERIFY POLE LOCATIONS TO AVOID NATURAL AND BUILT SITE FEATURES THAT WOULD CONFLICT WITH PROPER INSTALLATION OF POLE AND POLE FOUNDATIONS.
7.

CONTRACTOR TO COORDINATE INSTALLATION OF NEW LUMINAIRES AND WIRING ON EXISTING WOOD POLES WITH MAINEDOT, MUNICIPALITY, AND LOCAL UTILITY PRIOR TO INSTALLATION.
8.

NO UNDERGROUND SPLICES WILL BE PERMITTED.
9.

BASELINE STATIONS AND OFFSETS CITED ON THE PLANS FOR PROPOSED LIGHT POLE LOCATIONS ARE INTENDED TO INDICATE LONGITUDINAL SPACING OF NEW POLES ALONG THE HIGHWAY AND APPROXIMATE OFFSETS FROM BASELINES. THE CONTRACTOR SHALL STAKE THESE LOCATIONS IN THE FIELD BASED ON THE STATED STATIONS AND OFFSETS. THESE LOCATIONS SHALL BE ADJUSTED, SUBJECT TO APPROVAL OF THE PROJECT RESIDENT, IF NEEDED TO MEET REQUIRED SETBACKS NOTED ON THE LIGHTING TYPICAL SECTIONS OR TO AVOID CONFLICTS WITH EXISTING ELECTRICAL CONDUIT OR OTHER ROADWAY FEATURES.
10.

NEW CIRCUIT I WILL SERVE 6 LIGHT POLES SURROUNDING THE INTERSECTION OF SOUTH STREET AND EAST MAIN STREET.
11.

THE CONTRACTOR SHALL COORDINATE WITH CENTRAL MAINE POWER COMPANY AND MAINEDOT TO CONFIRM LOCATIONS AND MAKE ARRANGEMENTS FOR PROVIDING NEW ELECTRIC SERVICES.
12.

NEW LIGHTING CIRCUITS ARE TO BE PHOTOCELL ACTIVATED BY A PHOTOCELL ON THE NEW TRAFFIC SIGNAL CONTROL CABINET.
13.

NEW LIGHTING FIXTURE VOLTAGE SHALL BE 240 VOLTS.
14.

LIGHTING FIXTURES SHALL BE IES FULL CUTOFF LIGHT EMITTING DIODE (LED) FIXTURES WITH 4000K COLOR TEMPERATURE. IES DISTRIBUTION TYPE SHALL BE AS SPECIFIED ON THE PLANS. LED MODULES SHALL BE IP65 OR IP66 RATED.
15.

ALL FIXTURES SHALL BE GASKETED AND HAVE SURGE PROTECTION AND A DOUBLE FUSE KIT. ALL FIXTURES SHALL BE BLACK. THE LIGHTING LAYOUT FOR LUMINAIRES WAS DONE USING THE BELOW LUMINAIRES:

ESL3 P30S MVOLT R3 40K, 4 LUMINAIRES ON 4 WOOD POLES
CY55PIB P05 40K, 2 LUMINAIRES ON 2 ORNAMENTAL POLES

LED COLOR TEMPERATURE FOR FIXTURES INSTALLED SHALL BE 4000K. IF DIFFERENT FIXTURES ARE PROPOSED, THEY SHALL BE IES FULL CUTOFF LED LUMINAIRES WITH THE SAME DISTRIBUTION TYPES AS USED IN THE ORIGINAL DESIGN. THE CONTRACTOR MUST DEMONSTRATE THAT THE PROPOSED FIXTURES WILL REASONABLY EQUAL THE LIGHT LEVELS AND DISTRIBUTIONS SHOWN ON THE PLANS, IN THE OPINION OF MAINEDOT.
16.

IF DIFFERENT FIXTURES ARE PROPOSED, THEY SHALL BE IES FULL CUTOFF WITH IES DISTRIBUTION TYPES AS SPECIFIED ON THE PROJECT PLANS. THE CONTRACTOR MUST DEMONSTRATE THE THE PROPOSED FIXTURES WILL REASONABLY EQUAL THE LIGHT LEVELS AND DISTRIBUTIONS SHOWN ON THE PLANS, IN THE OPINION OF MAINEDOT.
17.

NO PROPOSED ALTERNATIVE LUMINAIRES WILL BE CONSIDERED UNLESS THE MANUFACTURER AND MODELS ARE APPROVED IN ADVANCE BY MAINEDOT'S STATE TRAFFIC ENGINEER. PRE-APPROVED MANUFACTURERS AND FIXTURES FOR THIS PROJECT INCLUDE: ACUITY BRANDS 'CYCLONE' SERIES LUMINAIRES (OR APPROVED EQUAL) ACUITY BRANDS 'ESPLANADE' PENDANT SERIES LUMINAIRES (OR APPROVED EQUAL)

CONTACT: MARK FOWLER
ACUITY BRANDS LIGHTING, INC.
(207) 582-5106
MARK.FOWLER@ACUITYBRANDS.COM
18.

ALTERNATIVE LED LUMINAIRES MUST BE OF A MAKE AND MODEL PRE-APPROVED BY MAINEDOT'S STATE TRAFFIC ENGINEER AND CONSISTENT WITH THE MAINTENANCE INVENTORY OF LIGHTING HARDWARE OF THE DEPARTMENT UNLESS OTHERWISE APPROVED. EVALUATION BY MAINEDOT OF ALTERNATIVE LED LUMINAIRES THAT MAY BE PROPOSED BY THE CONTRACTOR FOR SUBSTITUTION WILL REQUIRE SUBMITTAL OF THE FOLLOWING, AT MINIMUM: IES LM-79-19 ABSOLUTE TESTING REPORT FOR THE PROPOSED ALTERNATIVE LUMINAIRE; IES LM-80-20 TESTING REPORT FOR LED CHIPS TO BE USED IN THE ALTERNATIVE LUMINAIRE, DOCUMENTING TESTING FOR A MINIMUM OF 8500 HOURS; IES TM-21-21 REPORT FOR PROJECTED LONG TERM LUMEN MAINTENANCE, INCLUDING INCREMENTAL LUMEN DEPRECIATION TABLE AT 25 DEGREES CELCIUS TO A MINIMUM OF 50,000 HOURS; IES PHOTOMETRIC FILE FROM THE MANUFACTURER FOR THE PROPOSED ALTERNATIVE LUMINAIRE; PHOTOMETRIC PLOT, OVERLAID ON THE LAYOUT OF THE LIGHTING ZONES. VALUES OF FACTORS USED FOR CALCULATION OF THE ASSUMED LIGHT LOSS FACTOR; SPECIFICATION DATA REGARDING OPTICS, CHROMATIC COLOR TEMPERATURE, DRIVER, SURGE PROTECTION, HOUSING, AND GASKETING.

19.

ORNAMENTAL LIGHT STANDARDS SHALL BE PAINTED BLACK AND HAVE A MINIMUM OF FOUR ANCHOR BOLTS.
20.

TIGHTENING OF ANCHOR BOLT NUTS ON POLES WITH BREAKAWAY BASES SHALL BE AS RECOMMENDED BY THE BREAKAWAY BASE MANUFACTURER. FOR POLES WITHOUT BREAKAWAY BASES, SNUG-TIGHT CONDITION OF ANCHOR BOLTS SHALL BE DEFINED AS BETWEEN 20 AND 30 PERCENT OF THE VERIFICATION TORQUE VALUE DETERMINED BY THE FORMULA IN FHWA PUBLICATION NHI 05-036. ADDITIONAL TIGHTENING BEYOND SNUG-TIGHT CONDITION SHALL BE DONE IN ACCORDANCE WITH SECTION 634.027 OF THE MAINEDOT STANDARD SPECIFICATIONS.
21.

LIGHTING FIXTURES SHALL ATTACH TO POLES BY A DECORATIVE ARM, MATCHING THE MAKE AND MODEL OF THE DECORATIVE LIGHT. INSTALLATION ON STANDARD BRACKET ARMS WILL NOT BE ALLOWED.
22.

ORNAMENTAL LIGHT POLE AND BASE TO BE BLACK AND SIMILAR TO HOLOPHANE MODEL PV42-15-INS-BKH-SM WITH BMI3-BKH-SM BASE COVER.
23.

NEW POWER SERVICE CONDUIT REQUIRED BETWEEN THE POWER SOURCE AND THE METER SHALL BE RIGID METAL CONDUIT.
24.

ALL EXPOSED RIGID CONDUIT FITTINGS AND HARDWARE SHALL BE GALVANIZED.
25.

ALL SECONDARY WIRING FROM THE BRANCH CIRCUITS TO THE POLES SHALL BE NO.8 STRANDED COPPER XHHW-2. WIRE SIZES NOTED ON THE PLANS ARE APPROXIMATE. FINAL WIRE SIZING SHALL BE PERFORMED BY THE CONTRACTOR IN CONFORMANCE WITH N.E.C. REQUIREMENTS BASED ON ELECTRICAL LOADS OF ACTUAL ELECTRICAL COMPONENTS TO BE INSTALLED.
26.

ALL ORNAMENTAL LIGHT POLES SHALL BE BONDED TO THE GROUNDING CONDUCTOR.
27.

FOUNDATIONS FOR PEDESTRIAN CROSSING LIGHT STANDARDS SHALL HAVE A GROUND ROD LOCATED IN OR ADJACENT TO THE FOUNDATION THAT IS BONDED TO THE GROUNDING CONDUCTOR. THE GROUND WIRE FOR THE GROUND ROD SHALL EXIT THROUGH A HALF-INCH DIAMETER CONDUIT IN THE FOUNDATION. PAYMENT FOR GROUND RODS AND GROUND WIRE CONDUIT IN FOUNDATIONS SHALL BE INCLUDED IN ITEM 634.160, HIGHWAY LIGHTING.
28.

PAYMENT UNDER ITEM 634.209/ORNAMENTAL CROSSWALK LIGHT STANDARDS WILL INCLUDE, BUT NOT BE LIMITED TO, NEW POLES, TRANSFORMER BASES, AND BREAKAWAY DEVICES.
29.

PAYMENT UNDER ITEM 634.160, HIGHWAY LIGHTING, WILL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO PROVIDE A FULLY FUNCTIONING HIGHWAY LIGHTING SYSTEM EXCEPT THOSE ITEMS TO BE PAID UNDER OTHER RELATED BID ITEMS IN THE CONTRACT.
30.

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL FURNISH TO MAINEDOT TWO SETS OF AS-BUILT PLANS FOR FUTURE REFERENCE AND SYSTEM MAINTENANCE.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

02532900

WIN
025329.00

HIGHWAY PLANS

STATE OF MAINE
THOMAS J. LEGER
No. 18725
LICENSED PROFESSIONAL ENGINEER

Signature: Thomas J. Leger

18725

11/22/2024

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN-DETAILED
DESIGN-DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

BY
L. Rowe
W. Lavoie
L. Dracoll

DATE
11/24
11/24

DOVER-FOXCROFT
RTE 7\ RTE 15

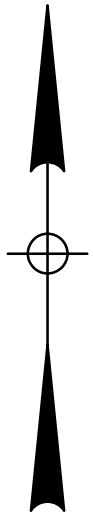
LIGHTING NOTES

SHEET NUMBER

9

OF 29

HNTB



LEGEND FOR LIGHTING

- * LIGHTING POLE, LUMINAIRE AND FOUNDATION (WHERE APPLICABLE)
- ☒ CONTROLLER CABINET AND SERVICE
- ▣ PRECAST JUNCTION BOX
- OHE— PROPOSED OVERHEAD WIRING (FOR LIGHTING)
- OHS— PROPOSED OVERHEAD SERVICE
- 1.0 LIGHT LEVEL FOOT CANDLES (FC)

LIGHTING POLE LOCATIONS				
POLE NO.	STATION, OFFSET	LUMINAIRE HEIGHT	POLE TYPE	ARM LENGTH
L1	1001+79.7, 26.2' LT.	25'	PROPOSED WOOD POLE	2.5'
L2	1002+87.1, 26.7' LT.	25'	PROPOSED WOOD POLE	2.5'
L3	101+28.9, 26.8' RT.	25'	EXISTING WOOD POLE	2.5'
L4	1001+11.3, 25.5' RT.	25'	PROPOSED WOOD POLE	2.5'
L5	1001+49.2, 31.9' RT.	15'	ORNAMENTAL METAL POLE	2.5'
LS6	1002+56.9, 23.7' RT.	15'	ORNAMENTAL METAL POLE	2.5'



NOTE:

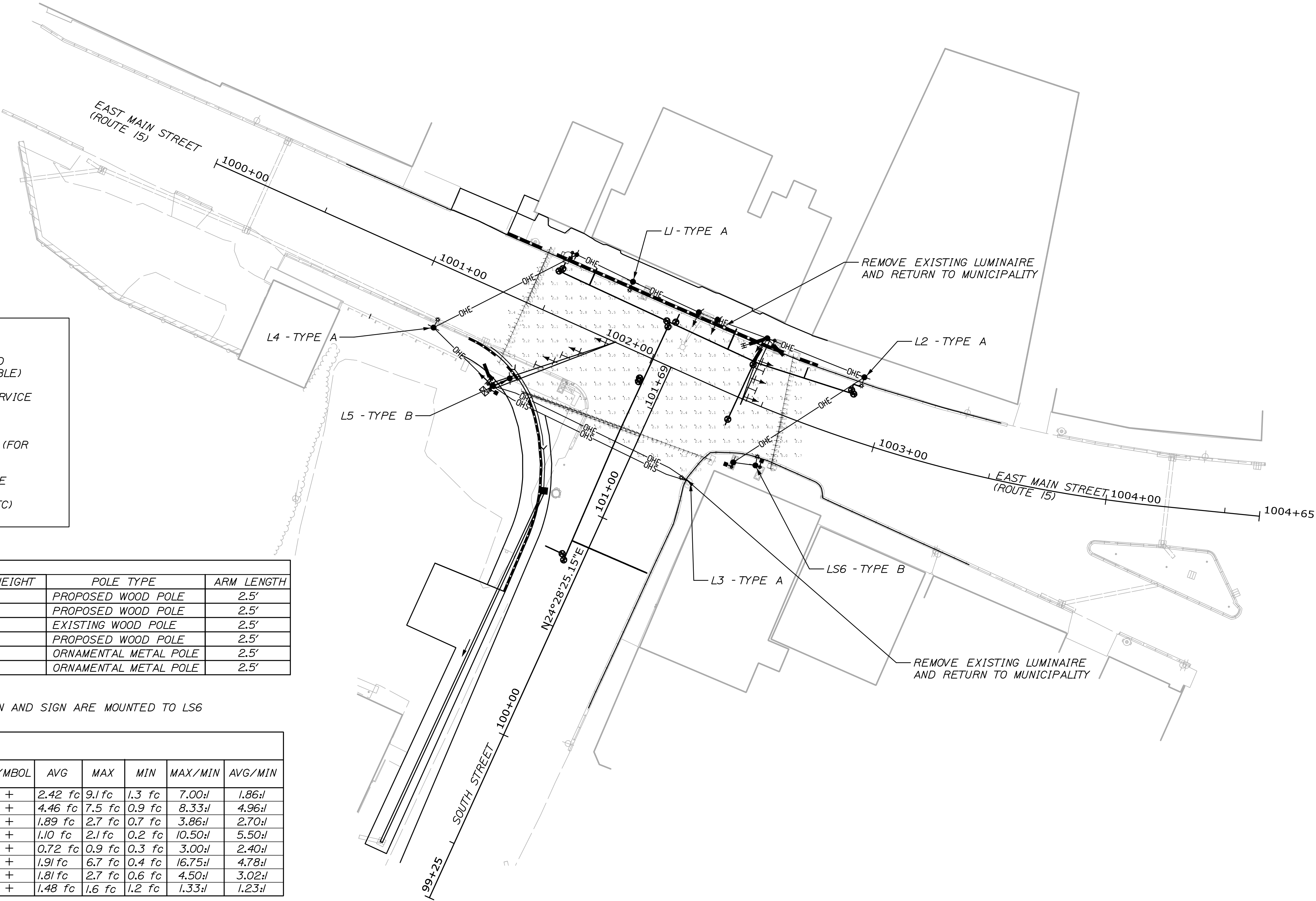
- PEDESTRIAN SIGNAL HEAD, PUSH BUTTON AND SIGN ARE MOUNTED TO LS6

STATISTICS						
DESCRIPTION	SYMBOL	AVG	MAX	MIN	MAX/MIN	AVG/MIN
HORIZONTAL ILLUMINANCE	+	2.42 fc	9.1 fc	1.3 fc	7.00:1	1.86:1
VERTICAL ILL E SIDE EB - TURN	+	4.46 fc	7.5 fc	0.9 fc	8.33:1	4.96:1
VERTICAL ILL E SIDE WB	+	1.89 fc	2.7 fc	0.7 fc	3.86:1	2.70:1
VERTICAL ILLUMINANCE NB	+	1.10 fc	2.1 fc	0.2 fc	10.50:1	5.50:1
VERTICAL ILL S SIDE SB - LEFT TURN	+	0.72 fc	0.9 fc	0.3 fc	3.00:1	2.40:1
VERTICAL ILL S SIDE SB - RIGHT TURN	+	1.91 fc	6.7 fc	0.4 fc	16.75:1	4.78:1
VERTICAL ILL W SIDE EB	+	1.81 fc	2.7 fc	0.6 fc	4.50:1	3.02:1
VERTICAL ILL W SIDE WB - FROM SOUTH	+	1.48 fc	1.6 fc	1.2 fc	1.33:1	1.23:1

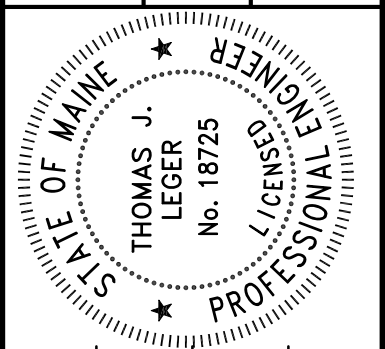
NOTES:

- STATISTICS LISTED ARE FOR CONFLICT ANALYSIS AREAS SHOWN ON THE PHOTOMETRIC GRID ON THE LIGHTING PLANS. SUBSTITUTION OF FIXTURES OTHER THAN THOSE LISTED IN THE LIGHTING SCHEDULE MUST PRODUCE ILLUMINATION LEVELS AND DISTRIBUTIONS RESULTING IN COMPARABLE STATISTICS FOR THOSE ANALYSIS AREAS.
- FOR ELECTRIC SERVICE SEE SIGNAL PLANS.

LUMINAIRE SCHEDULE										
SYMBOL	LABEL	QUANTITY	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	NUMBER LAMPS	FILENAME	LUMENS PER LAMP	LIGHT LOSS FACTOR	WATTAGE
	A	4	HOLOPHANE LIGHTING	ESL3-P30S-40K-MVOLT-SG3-QSM-BK-SH-UASF-SS	ESPLANADE LARGE TEARDROP LED P30 PERFORMANCE PACKAGE 4K MVOLT TYPE 3 ASYMMETRIC SAG (SHALLOW) GLASS AND DOOR, SHORT SKIRT, QUICK STEM MOUNT	1	ESL3_P30S_40K_XXXX_SG3_NPT_SS.ies	11950	0.85	92
	B	2	CYCLONE LIGHTING	CY55PIB-FCG-TCW-PI0-40K-MVOLT-10KV-BKH-SM	CYCLONE CROSSWALK LIGHT LED DOMIA PERFORMANCE PACKAGE FULL GLASS CLEAR, SHORT SKIRT, PEDESTRIAN DIRECTIONAL	1	CY55PIB-FCG-TCW-P05-40K.ies	2981	0.85	19.3



PLAN



Signature: Thomas J. Leger
P.E. NUMBER: 18725
DATE: 11/22/2024

PROJ. MANAGER	BY	DATE
L. Rowe	W. Lavoie	11/24
CHECKED-REVIEWED	L. Discoli	11/24
DESIGN-DETAILED		
DESIGN-DETAILED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		



EXISTING SIGNS

REMOVE AND DISPOSE

LEFT TURN SIGNAL

R10-10
X1

RELOCATE

H

D9-2
X1

RELOCATE

→

M6-1R
X1

PROPOSED SIGNALS

A2, A3,
C1, C2

AI

B3, C3,
C4

BI, B2

PI-P6

EXISTING SIGNS

REMOVE AND DISPOSE

B2

AI

A2, A3,
BI, CI

C2

SIGNAL PLAN LEGEND

EXISTING

PROPOSED

Signal Head

Pedestrian Signal Head

Pedestrian Push Button

Controller Cabinet

Mast Arm Mounted Sign

Mast Arm

Video Detection

Pole

Point-to-Point Wireless Link

Roadside Unit (RSU)

Proposed Overhead Signal Wiring

Proposed Overhead Service

SIGNAL POLE LOCATIONS				
POLE NO.	STATION, OFFSET	POLE HEIGHT	POLE TYPE	ANCILLARY EQUIPMENT
S1	1001+43.8, 37.7' RT.	-	PROPOSED MAST ARM POLE	C4, P2, P3, R10-3eR, R10-3eL, PUSH BUTTON X2, V5
S2	1001+53.5, 26.9' LT.	25'	PROPOSED WOOD POLE	PI, R10-3eR, PUSH BUTTON
S3	1002+10.1, 25.8' LT.	25'	PROPOSED WOOD POLE	BI
S4	1002+18.5, 26.0' LT	25'	PROPOSED WOOD POLE	B2
S5	1002+41.2, 27.5' LT.	-	PROPOSED MAST ARM POLE	B3, P6, R10-3eL, PUSH BUTTON, V6, V7
LS6	1002+56.9, 23.7' RT.	15'	ORNAMENTAL METAL POLE	P5, R10-3eR, PUSH BUTTON
S7	1002+48.2, 26.0' RT.	25'	PROPOSED WOOD POLE	P4, R10-3eL, PUSH BUTTON

NOTE:
1. LS6 IS AN ORNAMENTAL LIGHT POLE WITH PEDESTRIAN SIGNAL EQUIPMENT AS NOTED. ANY TOUCHUP PAINT REQUIRED DUE TO THE INSTALLATION OF SIGNAL EQUIPMENT INCIDENTAL TO 643.71 TRAFFIC SIGNAL MODIFICATION: EAST MAIN STREET & SOUTH STREET

PLAN

Scale of Feet

PROPOSED SIGNS

START CROSSING
Watch For
Vehicles

DONT START
Finish Crossing
If Started

TIME REMAINING
To Finish Crossing

DONT CROSS
PUSH BUTTON

R10-3eR
X3
1

START CROSSING
Watch For
Vehicles

DONT START
Finish Crossing
If Started

TIME REMAINING
To Finish Crossing

DONT CROSS
PUSH BUTTON

R10-3eL
X3
2

ONLY

R3-5L
X1
3

ONLY

R3-5A
X2
4

ONLY

R3-5R
X1
5

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

02532900

WIN
025329.00

HIGHWAY PLANS

DOVER-FOXCROFT
RTE 7\ RTE 15

SIGNAL PLAN

SHEET NUMBER

11

OF 29

PROJ. MANAGER

DESIGN-DETAILED

CHECKED-REVIEWED

DESIGN-DETAILED

DESIGN-DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

DATE

BY

L. Rowe

W. Lavoie

A. Green

L. Discoli

11/24

11/24

SIGNATURE

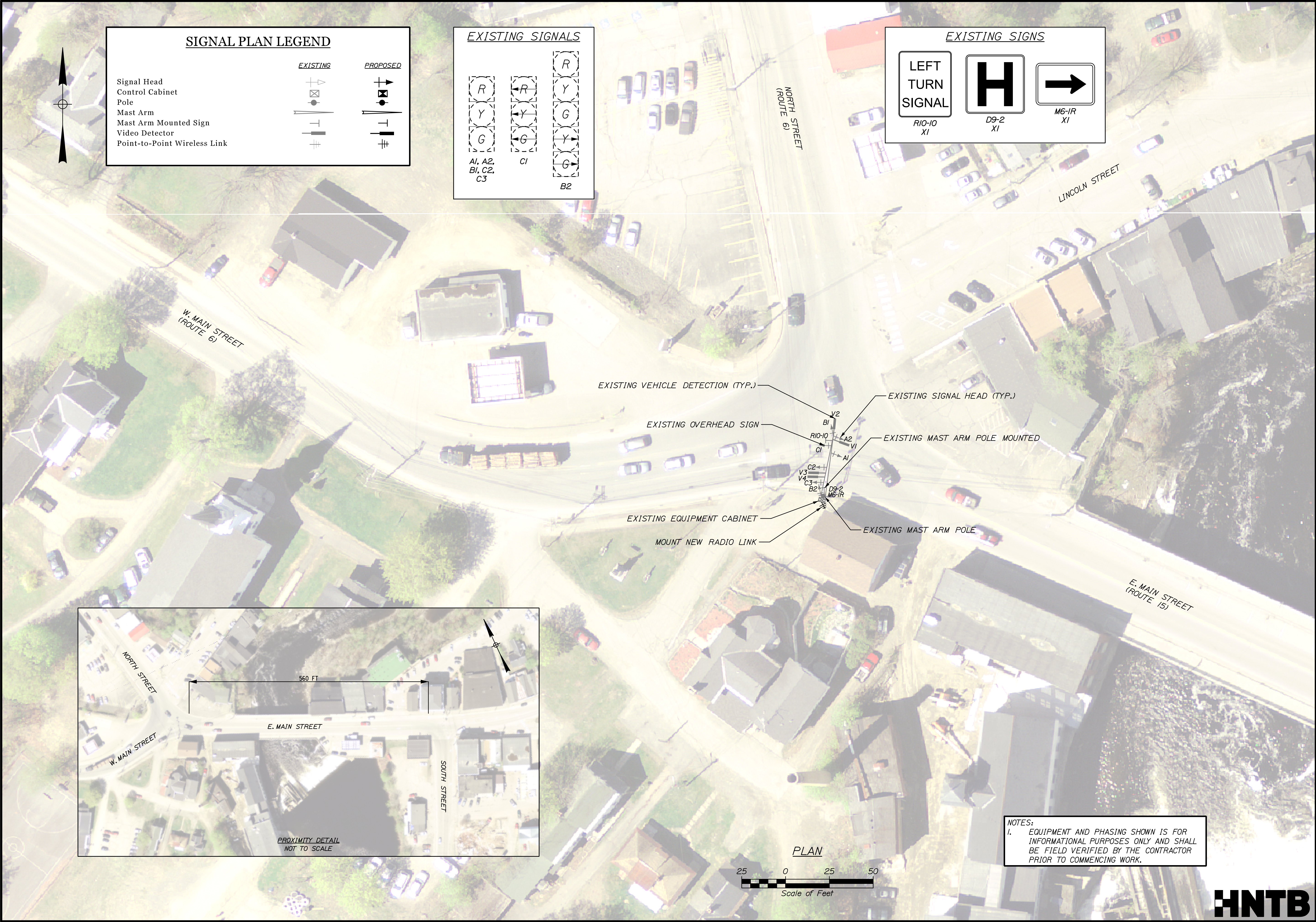
15094

P.E. NUMBER

11/22/2024

DATE

HNTB



STATE OF MAINE DEPARTMENT OF TRANSPORTATION		02532900		WIN 025329.00		HIGHWAY PLANS	
DOVER-FOXCROFT RTE 7\ RTE 15		SIGNAL PLAN		SHEET NUMBER		12 OF 29	
DATE		BY		PROJ. MANAGER		L. Rowe	
11/24		W. Lavoie		DESIGN-DETAILED		W. Lavoie	
11/24		L. Discoli		CHECKED-REVIEWED		A. Green	
SIGNATURE		P.E. NUMBER		DESIGN-DETAILED		DESIGN-DETAILED	
15094		15094		REVISIONS 1		REVISIONS 1	
11/22/2024		11/22/2024		REVISIONS 2		REVISIONS 2	
DATE		DATE		REVISIONS 3		REVISIONS 3	
				REVISIONS 4		REVISIONS 4	
				FIELD CHANGES		FIELD CHANGES	

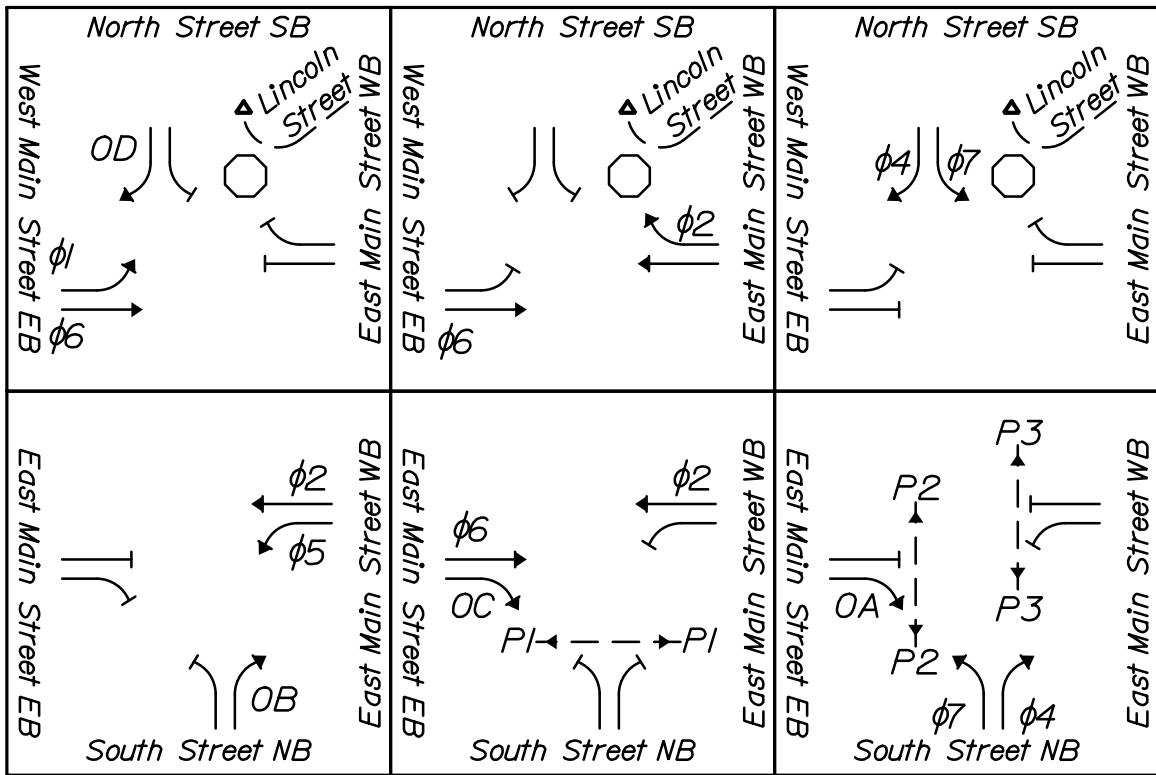
NOTES:

1. EQUIPMENT AND PHASING SHOWN IS FOR INFORMATIONAL PURPOSES ONLY AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING WORK.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
02532900
WIN
025329.00
HIGHWAY PLANS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
02532900
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025329.00
HIGHWAY PLANS

SIGNAL PHASING SEQUENCE



- PEDESTRIAN PHASING NOTES:
- 7 SECOND LEADING PEDESTRIAN INTERVAL SHALL BE USED UPON ACTIVATION FOR ALL PEDESTRIAN PHASES
 - phi 4 SHALL DISPLAY A RED ARROW WHEN P3 IS CALLED
 - phi 7 SHALL DISPLAY A FLASHING YELLOW ARROW WHEN P2 IS CALLED
 - OA SHALL DISPLAY A RED ARROW WHEN P2 IS CALLED
 - OC SHALL DISPLAY A RED ARROW WHEN P1 IS CALLED

SOUTH STREET AND EAST MAIN STREET
SIGNAL TIMING

	NOT USED	EAST MAIN ST	NOT USED	SOUTH ST	EAST MAIN ST	EAST MAIN ST	SOUTH ST	NOT USED
	-	WBT	-	NBR	WBL	EBT	NBL	-
	phi 1	phi 2	phi 3	phi 4	phi 5	phi 6	phi 7	phi 8
MINIMUM GREEN	-	10	-	10	5	10	5	-
VEHICLE EXTENSION	-	3	-	5	3	3	3	-
MAXIMUM GREEN	-	35	-	20	15	30	20	-
MAXIMUM 2	-	-	-	-	-	-	-	-
YELLOW	-	4	-	3	3	4	3	-
ALL RED	-	2	-	3	2	2	3	-
RECALL MODE	-	SOFT	-	NONE	NONE	SOFT	NONE	-
DYNAMIC MAX	-	30	-	30	-	30	30	-
DYNAMIC STEP	-	10	-	10	-	10	10	-
LEAD PED INT	-	-	-	7	-	7	7	-
WALK TIME	-	-	-	4	-	4	4	-
PED CLEAR	-	-	-	14	-	23	14	-

NOTE: PEDESTRIAN ACTIVATION BY PUSH BUTTON ONLY

NORTH STREET, EAST MAIN STREET AND WEST MAIN STREET
SIGNAL TIMING

	WEST MAIN ST	EAST MAIN ST	NOT USED	NORTH ST	NOT USED	WEST MAIN ST	NORTH ST	NOT USED
	EBL	WBTR	-	SBR	-	EBT	SBL	-
	phi 1	phi 2	phi 3	phi 4	phi 5	phi 6	phi 7	phi 8
MINIMUM GREEN	5	10	-	5	-	10	5	-
VEHICLE EXTENSION	3	3	-	3	-	3	3	-
MAXIMUM GREEN	20	15	-	35	-	35	35	-
MAXIMUM 2	-	-	-	-	-	-	-	-
YELLOW	3	3	-	3	-	3	3	-
ALL RED	4	3	-	2	-	3	2	-
RECALL MODE	NONE	SOFT	-	NONE	-	SOFT	NONE	-

EQUIPMENT AND WORK ITEMS

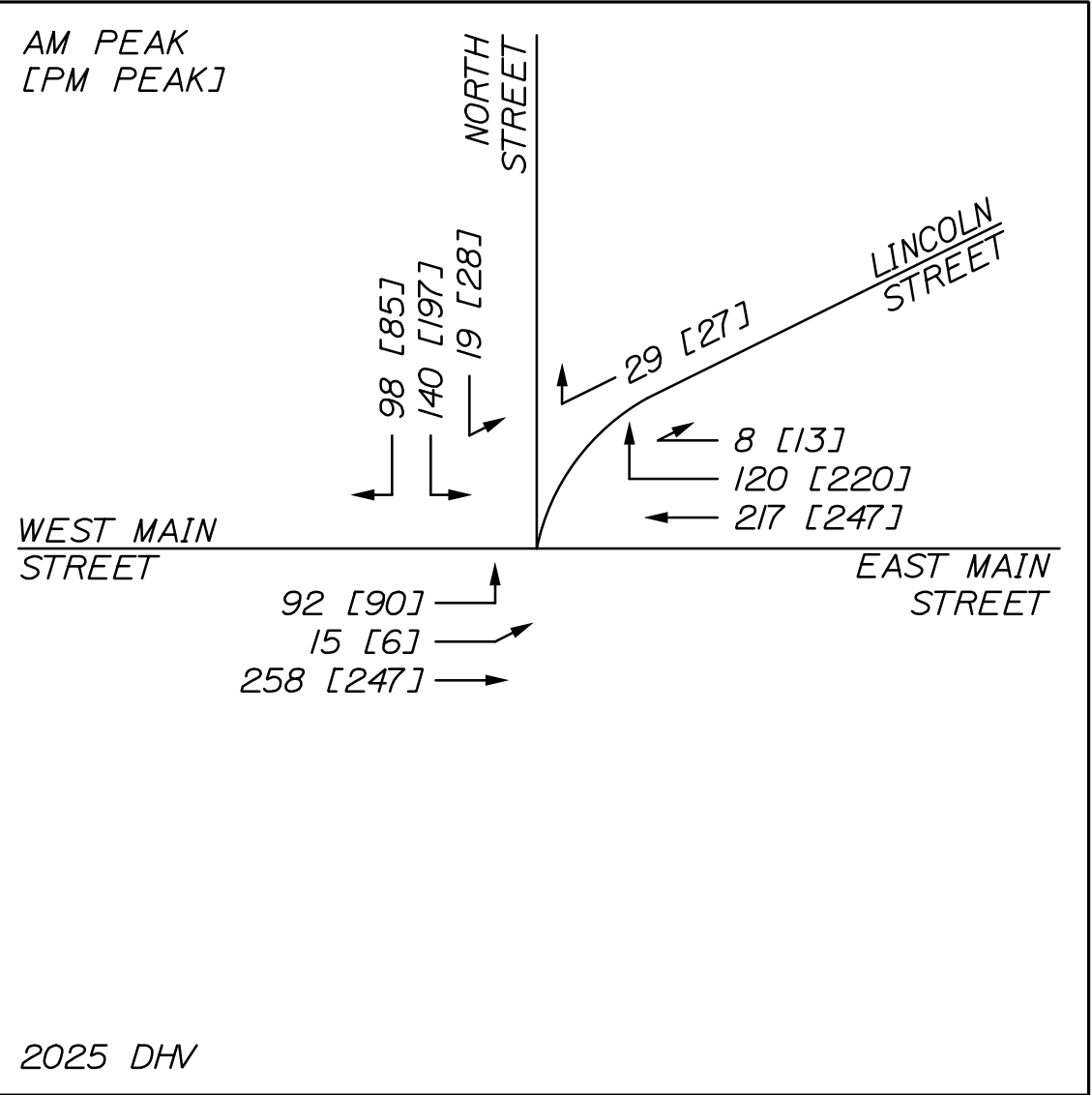
	SOUTH ST AND E. MAIN ST	NORTH ST, AND MAIN ST
EQUIPMENT AND WORK ITEMS (ITEM 643.71 - TRAFFIC SIGNAL MODIFICATION)	QTY	QTY
CONFIRM EXISTING EQUIPMENT CONDITION	-	1
FURNISH AND INSTALL NEW ATC MAINEDOT 32/48 SPEC GROUND MOUNT CABINET AND ATC CONTROLLER COMPLETE WITH ALL ANCILLARY EQUIPMENT WIRING INCLUDING BATTERY BACKUP WITH INTEGRATION INTO CLOUD BASED CENTRAL MANAGEMENT SYSTEM AND LIGHTING EQUIPMENT	1	-
FURNISH AND INSTALL NEW 16-CHANNEL ETHERNET EQUIPPED ENHANCED MALFUNCTION MANAGEMENT UNIT (MMU)	1	-
FURNISH AND INSTALL AI FIELD MONITORING UNIT (FMU)	1	-
FURNISH/INSTALL 3-SECTION 12-INCH SIGNAL HEADS W/ LED MODULES, TUNNEL VISORS AND REFLECTORIZED ALUMINUM LOUVERED BACKPLATES MOUNTED ON SPAN WIRE W/ NEW MOUNTING HARDWARE	8	-
FURNISH/INSTALL 4-SECTION 12-INCH SIGNAL HEADS W/ LED MODULES, TUNNEL VISORS AND REFLECTORIZED ALUMINUM LOUVERED BACKPLATES MOUNTED ON SPAN WIRE W/ NEW MOUNTING HARDWARE	2	-
FURNISH/INSTALL PEDESTRIAN SIGNAL HEAD W/ LED MODULES, MOUNTED ON POLES W/ NEW MOUNTING HARDWARE AS NOTED	6	-
FURNISH/INSTALL PEDESTRIAN PUSH BUTTONS AND SIGNS	6	-
FURNISH/INSTALL NEW SIGNAL HEAD CABLE WIRING (CONTINUOUS WIRING FROM CABINET TO SIGNAL SYSTEM)	1	-
REMOVE AND DISPOSE OF EXISTING SIGNAL POLE, MAST ARM, FOUNDATION, AND ANCILLARY EQUIPMENT	6	-
REMOVE AND DISPOSE OF SIGNAL HEAD FROM UTILITY POLE	1	-
IMPLEMENT LOCAL SYSTEM SIGNAL TIMINGS	1	1
FURNISH AND INSTALL 25' WOOD POLE (ITEM 643.80) (LIGHTING QUANTIFIED SEPARATELY)	4	-
FURNISH AND INSTALL PRECAST JUNCTION BOX (ITEM 626.11)	1	-
FURNISH AND INSTALL CONTROLLER CABINET FOUNDATION (ITEM 626.38)	1	-
FURNISH AND INSTALL 2-INCH METALLIC CONDUIT (626.21) (LIGHTING QUANTIFIED SEPARATELY)	50	-
FURNISH AND INSTALL 2-INCH NON-METALLIC CONDUIT (626.22) (LIGHTING QUANTIFIED SEPARATELY)	50	-
FURNISH AND INSTALL STOPLINE VEHICLE DETECTION SYSTEM WITH AVAILABLE PERFORMANCE MODULES FOR ALL APPROACHES (ITEM 643.21)	1	-
FURNISH AND INSTALL C-V2X ROADSIDE UNIT (ITEM 654.351)	1	-
FURNISH AND INSTALL 55' MAST ARM AND POLE (ITEM 643.91) (FOUNDATION QUANTIFIED SEPARATELY)	1	-
FURNISH AND INSTALL 30' MAST ARM AND POLE (ITEM 643.91) (FOUNDATION QUANTIFIED SEPARATELY)	1	-
FURNISH AND INSTALL POINT-TO-POINT WIRELESS RADIO LINK (ITEM 654.34)	.5	.5

NOTE: LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY

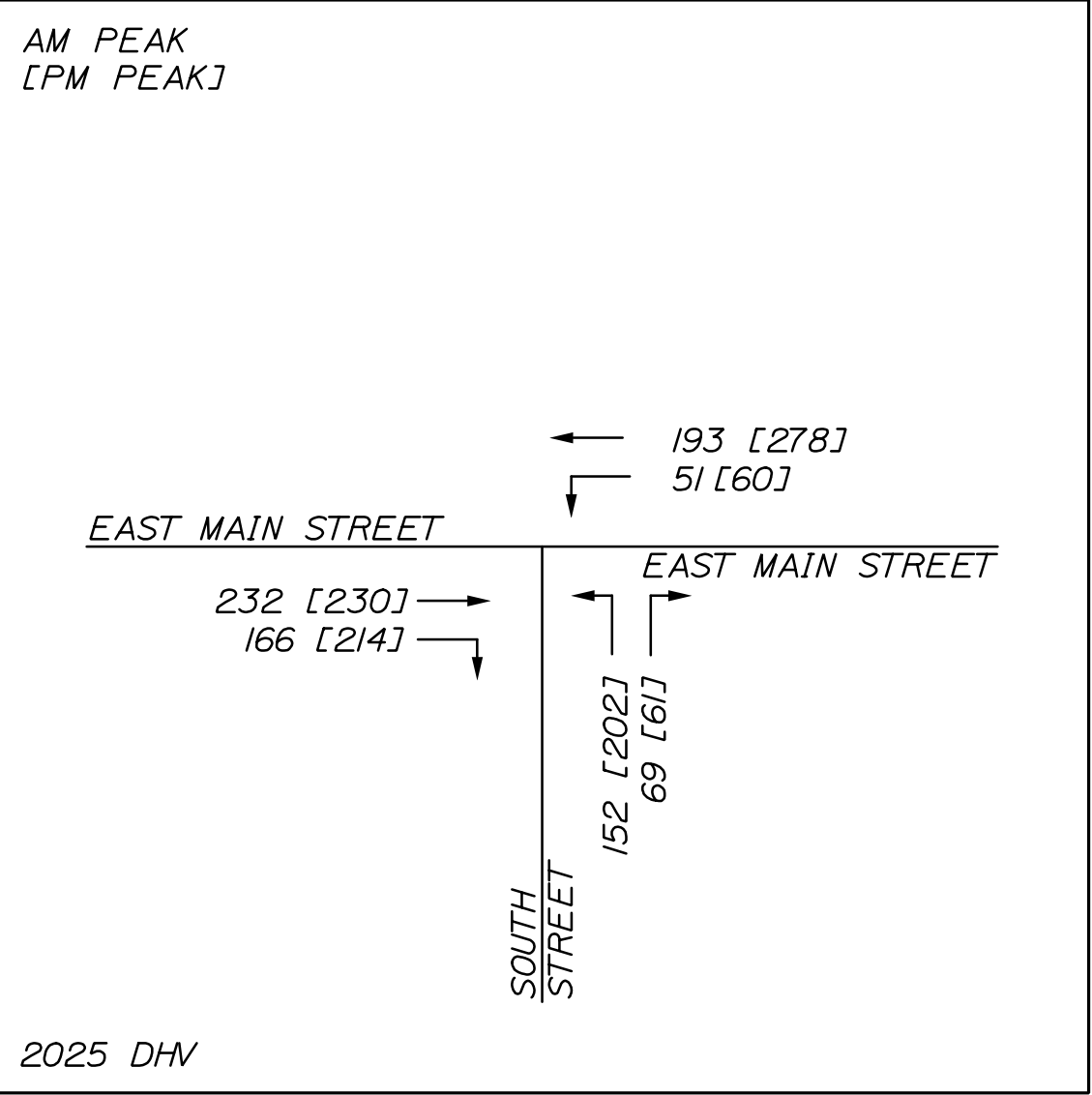
DETECTOR SCHEDULE

	DETECTOR ZONE	PHASE CALLED	VIDEO DETECTOR	STREET	DIRECTION	MODE	DELAY
SOUTH ST AND E. MAIN ST	1A	phi 6	V5	East Main Street EB	EB T	STOPLINE	-
	1B	phi 6	V5	East Main Street EB	EB R	STOPLINE	-
	2A	phi 7	V7	South Street NB	NB L	STOPLINE	-
	2B	phi 4	V7	South Street NB	NB R	STOPLINE	-
	3A	phi 5	V6	East Main Street WB	WB L	STOPLINE	-
	3B	phi 2	V6	East Main Street WB	WB T	STOPLINE	-

NOTE: CONTRACTOR TO VERIFY DETECTION AND EXISTING EQUIPMENT CONDITION AT NORTH ST, E. MAIN ST, AND W. MAIN ST INTERSECTION



NOTE: LINCOLN STREET OPERATES AS A RIGHT ONLY WITH A STOPPED CONDITION



COORDINATION CYCLE/SPLIT/OFFSET SCHEDULE

	SOUTH ST AND E. MAIN ST		NORTH ST, AND MAIN ST		COORDINATION MODE SET TO FIXED FORCE-OFF
	PLAN 1	PLAN 2	PLAN 1	PLAN 2	
CYCLE LENGTH	50	55	50	55	
OFFSET	0	0	1	15	
COORDINATED PHASE	4 & 7	4 & 7	4 & 7	4 & 7	
SPLIT TIME phi 1	-	-	20	20	
SPLIT TIME phi 2	35	35	15	15	
SPLIT TIME phi 3	-	-	-	-	
SPLIT TIME phi 4	15	20	15	20	
SPLIT TIME phi 5	15	15	-	-	
SPLIT TIME phi 6	20	20	35	35	
SPLIT TIME phi 7	15	20	15	20	
SPLIT TIME phi 8	-	-	-	-	
SPLIT TIME phi 9	-	-	-	-	

- NOTES:
- COORDINATION REFERENCE OFFSETS TO BEGINNING OF YELLOW
 - PLAN 1: 7:00 AM - 11:00 AM
 - PLAN 2: 3:00 PM - 7:00 PM
 - PEDESTRIAN PUSH BUTTON ACTIVATION WILL INCREASE SPLIT TIME AND SUPERSEDE COORDINATION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

02532900

WIN
025329.00

HIGHWAY PLANS

MAINE
ARIEL R. GREEN
No. 15094
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE
15094

P.E. NUMBER
11/22/2024

DATE

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN-DETAILED
DESIGN-DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

DATE
11/24

BY
W. Lavallee
L. Driscoll

DATE
11/24

BY
W. Lavallee
L. Driscoll

DOVER-FOXCROFT
RTE 7\ RTE 15

SIGNAL NOTES

SHEET NUMBER

13

OF 29

TRAFFIC SIGNAL NOTES

1. SCOPE OF WORK:
TRAFFIC SIGNAL WORK AT THE INTERSECTION OF SOUTH STREET AND E MAIN STREET (SOUTH STREET) CONSISTS OF REPLACING EXISTING TRAFFIC SIGNAL INFRASTRUCTURE AND COORDINATING THIS INTERSECTION WITH THE ADJACENT INTERSECTION OF W MAIN STREET, NORTH STREET AND E MAIN STREET (NORTH STREET). THE WORK INCLUDES BUT IS NOT LIMITED TO: FURNISHING AND INSTALLING A COMPLETE GROUND-MOUNTED ADVANCED TRAFFIC CONTROLLER (ATC), SIGNAL CABINET AND FOUNDATION, FIELD MONITORING UNIT (FMU), MONITORING MALFUNCTION UNIT (MMU), NON-INVASIVE STOP LINE DETECTION, VEHICULAR SIGNAL HEADS WITH RETROREFLECTIVE BACKPLATES, WIRING, SIGNAL CABLE, OVERHEAD MAST ARM MOUNTED SIGNS, MAST ARMS, WOOD POLES, WIRELESS POINT-TO-POINT COMMUNICATION, DOADSIDE UNIT (RSU), AND INCIDENTALS REQUIRED FOR COMPLETE FUNCTIONING SIGNAL INSTALLATIONS. IN ADDITION, THE PROJECT WILL PROVIDE THE MEANS FOR REMOTE COMMUNICATION TO THE TRAFFIC SIGNAL CABINET BY FMU FROM MAINEDOT'S EXISTING CLOUD-BASED CENTRAL MANAGEMENT SYSTEM VIA A SECURE VIRTUAL PRIVATE NETWORK TUNNEL. THE PROJECT ADDITIONALLY PROVIDES FOR CONNECTED VEHICLE INTEGRATION WITH THE ATC, RSU AND MAINEDOT TRAFFIC MANAGEMENT CENTER (TMC).
2. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING THE PROJECT WITH WORKING AND FULLY CONFIGURED TRAFFIC SIGNAL CONTROLLER FOR THE INTERSECTION, COMPLETE WITH INTEGRATION INTO THE CLOUD BASED CENTRAL MANAGEMENT SYSTEM, SIGNAL PERFORMANCE MEASURE APPLICATION, CONNECTED VEHICLE SYSTEM, INSTALLATION OF THE CENTRAL AND LOCATION INTERSECTION COMMUNICATION INTERFACE AND COORDINATION WITH THE MAINEDOT OFFICE OF INFORMATION TECHNOLOGY. THE CONTRACTOR IS FURTHER RESPONSIBLE FOR SYSTEM START-UP AND SYSTEM LOADING, ACCEPTANCE TESTING, AND TRAINING.
3. TRAFFIC SIGNAL WORK SHALL BE COMPLETED IN A MANNER AND ORDER THAT WILL CAUSE THE MINIMUM DISRUPTION TO TRAFFIC AND THE LEAST AMOUNT OF DOWNTIME TO THE TRAFFIC SIGNAL OPERATION.
4. CONTRACTOR SHALL UTILIZE A PORTABLE CHANGEABLE MESSAGE SIGN TO INFORM USERS OF THE SIGNAL PATTERN CHANGE. PCMS SHALL BE IN PLACE FOR A PERIOD OF 2 WEEKS BEFORE CHANGE IS IMPLEMENTED AND 1 MONTH AFTER.
5. ALL EXISTING DRIVEWAY ACCESS SHALL BE MAINTAINED AT ALL TIMES.
6. THE CONTRACTOR SHALL PROVIDE THE RESIDENT AND MAINEDOT WITH A SCHEDULE OF WORK FOR CONSTRUCTING THE TRAFFIC IMPROVEMENTS AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF WORK.
7. ALL SCHEDULES SHOWN ON THE PLANS ARE FOR INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULES BASED UPON PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
8. THE RESIDENT AND MAINEDOT SHALL HAVE THE RIGHT AND AUTHORITY TO DETERMINE THE ACCEPTABILITY OF WORK AND MATERIALS IN PROGRESS OR COMPLETED AND SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIALS WHICH DO NOT CONFORM, IN ITS SOLE OPINION, TO THE PLANS OR SPECIFICATIONS.
9. THE MAINTENANCE OF TRAFFIC SIGNALS SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR UNTIL FINAL ACCEPTANCE BY MAINEDOT.

GENERAL EQUIPMENT NOTES

1. TWO COPIES OF AS-BUILT PLANS, WIRING DIAGRAMS, BOX PRINTS, AND EQUIPMENT MANUALS SHALL BE LEFT IN EACH OF THE CONTROLLER CABINETS.
2. THE EQUIPMENT PROVIDED FOR THIS PROJECT SHALL BE COMPATIBLE WITH THE EQUIPMENT AT THE EXISTING INTERSECTION OF NORTH STREET. THE CONTRACTOR SHALL NOTIFY THE RESIDENT AND MAINEDOT IF THERE ARE ANY CONCERNS WITH EXISTING EQUIPMENT AT THE INTERSECTION NORTH STREET THAT WILL INTERFERE WITH INTERSECTION OPERATION AS SHOWN ON THE PLANS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING RED-LINE AS-BUILT DRAWINGS OF THE FINAL WORK TO THE RESIDENT. THOSE DRAWINGS SHALL BE ON A CLEAN SET OF PLANS SHOWING ALL CHANGES OR MODIFICATIONS TO THE BID PLANS.
4. THE CONTRACTOR IS DIRECTED TO PROJECT SPECIAL PROVISION 718 FOR ADDITIONAL INFORMATION RELATED TO THE FOLLOWING. THE SPECIAL PROVISION EXPANDS UPON THE INFORMATION FOUND IN THESE GENERAL NOTES:
 - a. 718.13 TRAFFIC CONTROL SYSTEM
 - b. 718.14 FIELD MONITORING UNIT (NOTE: DIFFERS FROM MAINEDOT REPAIR SPEC).

ELECTRICAL NOTES

1. CONDUIT FROM THE POWER SOURCE TO THE METER SHALL BE RIGID METAL CONDUIT. OTHER CONDUIT NOT UNDER PAVEMENT SHALL BE 2 INCH PVC SCHEDULE 40. MINIMUM BURIAL DEPTH SHALL BE 36".
2. TOP 3" OF CONDUIT SHALL BE SEALED TO PREVENT ENTRY BY RODENTS. BUSHINGS SHALL BE INSTALLED ON ALL CONDUIT TERMINATIONS AND PULL WIRE SHALL BE INSTALLED IN ALL CONDUIT. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE ASSOCIATED CONDUIT ITEM.
3. THERE SHALL BE NO SPLICES OR PULL BOXES EXCEPT AS NOTED ON THE PROJECT PLANS OR APPROVED BY THE RESIDENT. PULL BOXES ARE INTENDED FOR WIRE PULLING ACCESS ONLY. PULL BOX COVERS SHALL BE LABELED "TRAFFIC" AND SHALL BE GROUNDED.
4. AERIAL WIRES SHALL BE INSTALLED TO MEET ALL NEC REQUIRED CODES FOR POWER AND COMMUNICATION. WIRES THAT CROSS OVER TRAFFIC SHALL BE LOCATED SUCH THAT THEY DO NOT CONFLICT WITH VEHICULAR MOVEMENTS AND MEET MINIMUM HEIGHT REQUIREMENTS.
5. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST 48 HOURS BEFORE ANY OPERATIONS ARE CONDUCTED THAT COULD POTENTIALLY CONFLICT WITH AERIAL UTILITIES.
6. THE CONTRACTOR IS RESPONSIBLE FOR FINDING EXACT LOCATIONS OF UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT DIG-SAFE AND APPROPRIATE AUTHORITIES PRIOR TO ANY SUBSURFACE ACTIVITIES. IT IS ASSUMED THE ONLY SUBSURFACE ACTIVITY OTHER THAN REMOVAL OF EXISTING EQUIPMENT WILL BE ON THE MAINEDOT OWNED PARCEL FOR THE PURPOSES OF GETTING POWER TO THE PROPOSED CABINET. ALL OTHER CONNECTIONS SHALL BE MADE AERIALY, PAID FOR INCIDENTAL TO 643.71 TRAFFIC SIGNAL MODIFICATION: EAST MAIN STREET & SOUTH STREET.

VEHICLE DETECTION NOTES

1. THE CONTRACTOR SHALL FURNISH AND INSTALL NON-INVASIVE STOP LINE DETECTION AS APPROVED BY MAINEDOT AND THE RESIDENT FOR THE SOUTH STREET INTERSECTION.
2. DETECTION ZONES SHOWN IN THE PLANS ARE FOR ILLUSTRATIVE PURPOSES ONLY. FINAL DETECTION ZONES SHALL BE FIELD LOCATED AND APPROVED BY MAINEDOT AND THE RESIDENT. SPECIAL ATTENTION SHALL BE MADE TO ACHIEVE DETECTION AT LOCATIONS WHERE VEHICLES REGULARLY EXTEND IN FRONT OF STOP LINES.
3. THE VEHICLE DETECTORS ARE TO BE CONNECTED TO THE INTERSECTION TRAFFIC CONTROLLER FOR LOCAL VEHICLE DETECTION AND REMOTELY CONNECTED TO THE MAINEDOT TMC TO ALLOW FOR VISUAL CONFIRMATION (STOP LINE) AND ADJUSTMENT OF THE DETECTION ZONES AS SHOWN IN THE PLANS. WORK SHALL BE CONSTRUCTED AND PAID FOR AS OUTLINED IN SPECIAL PROVISION 643.2I.
4. THE LOCATION OF THE DETECTION CAMERAS SHOWN IN THE PLANS ARE CONCEPTUAL FOR OPTIMAL APPROACH COVERAGE. ACTUAL NUMBER OF DETECTION DEVICES AND MOUNTING LOCATIONS SHALL BE PROVIDED PER MANUFACTURER'S RECOMMENDATION TO ACHIEVE APPROVED DETECTION AREAS.
5. THE RESIDENT RESERVES THE RIGHT TO DIRECT THE CONTRACTOR TO ADJUST DETECTOR MOUNTING HEIGHT OR LOCATION FOR LOCAL CONDITIONS IDENTIFIED DURING OR AFTER INSTALLATION AT NO ADDITIONAL COST FOR INSTALLATION OR WIRING. THIS WORK WILL BE INCIDENTAL TO 643.2I NON-INVASIVE STOP LINE DETECTION.
6. THE CONTRACTOR SHALL RE-INSPECT EACH SIGNALIZED INTERSECTION DURING THE ACCEPTANCE TESTING PERIOD AND CERTIFY DETECTORS ARE FUNCTIONING PROPERLY BEFORE FINAL ACCEPTANCE IS GRANTED.

SIGNAL HEAD NOTES

1. ALL NEW SIGNAL HEADS SHALL BE MOUNTED TO WOOD POLES OR MAST ARMS AS INDICATED ON PLANS.
2. ALL NEW VEHICULAR SIGNAL HEADS SHALL BE EQUIPPED WITH NEW LED LENSES 12 INCHES IN DIAMETER AND WITH NEW 5-INCH LOUVERED BACK PLATES, INCLUDING 3" RETROREFLECTIVITY.
3. THE BOTTOM OF THE HOUSING OF ANY NEW SIGNAL FACES SHALL BE AT LEAST 17 FEET BUT NOT MORE THAN 19 FEET ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY. FOR POLE MOUNTED SIGNAL HEADS, THE BOTTOM OF THE HOUSING SHALL BE MOUNTED AT LEAST 8 FEET BUT NO MORE THAN 19 FEET ABOVE THE PAVEMENT GRADE AT THE HIGH POINT OF THE ROAD.

ROADSIDE UNIT (RSU) NOTES

- i. THE CONTRACTOR MAY MOUNT THE RSU ON ANY SIGNAL POLE PROVIDED THE ANTENNA HAS A CLEAR LINE OF SIGHT FOR ALL APPROACHES. THIS PROVISION IS TO BETTER ASSIST THE CONTRACTOR WITH COMMUNICATIONS LIMITATIONS.

COMMUNICATIONS NOTES

1. THE SYSTEM SHALL SUPPORT COMMUNICATIONS TO ADVANCED TRANSPORTATION CONTROLLERS, ASSOCIATED EQUIPMENT AND VEHICLE DETECTION AS SHOWN IN THE PLANS. ALL CONNECTIONS TO THE CLOUD-BASED CENTRAL MANAGEMENT SYSTEM SHALL BE VIA A SECURE VPN NETWORK. COMMUNICATIONS FROM THE CLOUD-BASED SYSTEM TO THE ON-STREET TRAFFIC SIGNAL CONTROLLERS SHALL BE MADE THROUGH THE FMU.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING WHICH COMPATIBLE CELLULAR PROVIDER CAN PROVIDE THE BEST NETWORK COVERAGE TO THE FMU FOR REMOTE COMMUNICATIONS AND PROVIDE THE PROPER SIM CARD.
3. CONTRACTOR SHALL PROCURE A HIGH GAIN ANTENNA IN LIEU OF THE STANDARD FMU PETRI DISH ANTENNA.

BENCH TESTING NOTES

1. SIGNALS, CABINET, AND EQUIPMENT FOR SOUTH STREET SHALL BE BENCH TESTED AT THE SIGNAL CONTRACTOR'S LABORATORY PER 643.71 SPECIFICATION REQUIREMENTS.
2. UPON CONFIRMATION OF ACCEPTABLE BENCH TEST OPERATION BY MAINEDOT, THE SIGNAL MAY BE INSTALLED IN THE FIELD FOR ACCEPTANCE TESTING.

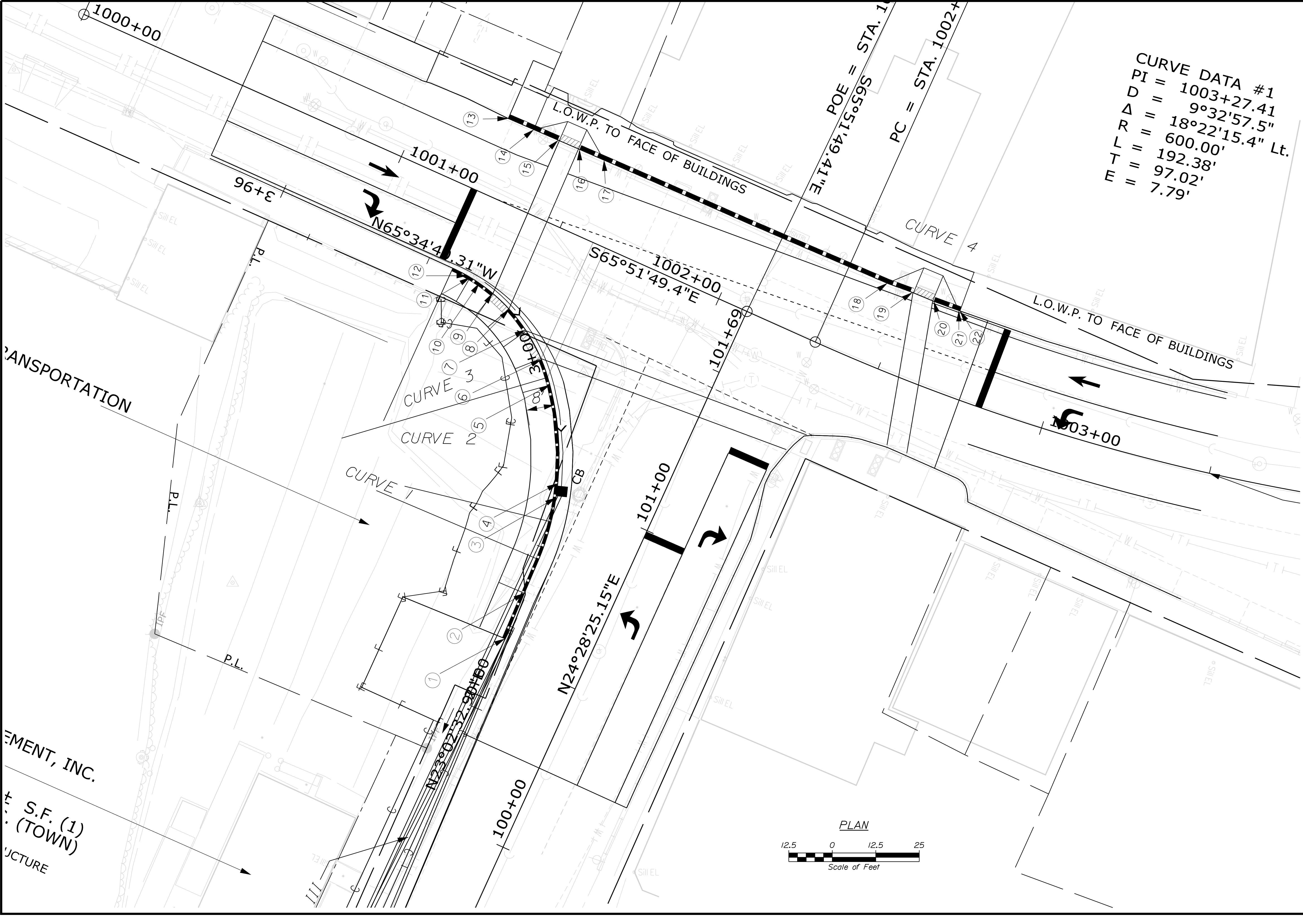
ACCEPTANCE TESTING NOTES

1. THE CONTRACTOR SHALL NOTIFY THE RESIDENT PRIOR TO BEGINNING ACCEPTANCE TESTING.
2. UPON COMPLETION OF THE 7-DAY TESTING PERIOD, MAINEDOT AND/OR THE RESIDENT SHALL EVALUATE SYSTEM OPERATIONS. IT IS EXPECTED THAT THE COMPLETE SYSTEM SHALL OPERATE FULLY FUNCTIONAL FOR A PERIOD OF 30 CONSECUTIVE DAYS WITHOUT MALFUNCTION. MINOR MALFUNCTIONS OR INOPERABILITY NOT THE FAULT OF THE CONTRACTOR, AS JUDGED BY MAINEDOT AND/OR THE RESIDENT, ARE NOT INCLUDED IN THE 30-DAY PERIOD. IF THE SYSTEM FAILS TO OPERATE AS INTENDED BY THIS SPECIFICATION THE MALFUNCTION SHALL BE CORRECTED BY THE CONTRACTOR AT ITS COST AND A NEW 30-DAY TESTING PERIOD SHALL BEGIN. THIS PROCESS SHALL CONTINUE UNTIL A COMPLETELY OPERABLE SYSTEM IS DEMONSTRATED FOR A CONSECUTIVE 30-DAY PERIOD.
3. ACCEPTANCE TESTING MUST DEMONSTRATE TO MAINEDOT AND/OR THE RESIDENT A REASONABLE SATISFACTION THAT THE HARDWARE AND LICENSED SOFTWARE FUNCTION IN ACCORDANCE WITH THE SPECIFICATIONS, REQUIREMENTS, FUNCTIONALITIES, PERFORMANCE CRITERIA OR OTHER BENEFITS STATED IN DOCUMENTATION, PROPOSALS AND/OR DEMONSTRATIONS GIVEN TO MAINEDOT.

SALVAGE RIGHTS NOTES

1. MAINEDOT SHALL HAVE FIRST RIGHTS TO ALL EQUIPMENT REMOVED OR REPLACED BY THE PROJECT. CONTACT: BROOKE.GLIDDEN@MAINEDOT.GOV. THE TOWN OF DOVER-FOXCROFT HAS SECOND SALVAGE RIGHTS TO ALL EQUIPMENT NOT CLAIMED BY MAINEDOT.
2. THE CONTRACTOR SHALL CAREFULLY REMOVE AND STORE ALL EQUIPMENT CLAIMED BY EITHER MAINEDOT OR THE MUNICIPALITY. THE STORAGE AREA SHALL BE SECURE. ALL CONTROL EQUIPMENT REMOVED THAT HAS COMPUTER CHIP TECHNOLOGY SHALL BE STORED IN AN INTERIOR CLIMATE CONTROLLED ENVIRONMENT.
3. ANY EQUIPMENT NOT CLAIMED BY EITHER MAINEDOT OR THE MUNICIPALITY FOR SALVAGE SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF IN A MANNER ACCEPTABLE TO THE RESIDENT.
4. ALL NECESSARY EQUIPMENT REMOVAL/STORAGE/RELOCATION/DISPOSAL SHALL BE PAID FOR INCIDENTAL TO ITEM 643.71 TRAFFIC SIGNAL MODIFICATION: EAST MAIN STREET & SOUTH STREET.

DOVER-FOXCROFT RTE 7\ RTE 15 SIGNAL NOTES	PROJ. MANAGER	L. Rowe	BY	DATE
	DESIGN-DETAILED	W. Lovdlee	W. Lovdlee	11/24
	CHECKED-REVIEWED	A. Greenlaw	L. Driscoll	11/24
	DESIGN2-DETAILED2			
	DESIGN3-DETAILED3			
	REVISIONS 1			P.E. NUMBER
	REVISIONS 2			11/22/2024
	REVISIONS 3			DATE
	REVISIONS 4			
	FIELD CHANGES			
SHEET NUMBER	14			
OF 29				



CURVE DATA #1
PI = 1003+27.41
D = 9°32'57.5"
Δ = 18°22'15.4" Lt.
R = 600.00'
L = 192.38'
T = 97.02'
E = 7.79'

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2532900

WIN
025329.00
HIGHWAY PLANS

DOVER FOXCROFT
ROUTES 7 & 15
CURB GEOMETRY

SHEET NUMBER
15
OF 29

PROJ. MANAGER	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
DESIGN-DETAILED					
CHECKED-REVIEWED					
DESIGN-DETAILED					
REVISIONS 1					
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

ITEM 609.11 VERT CURB TYPE 1			
STATION	TO	STATION	LENGTH
1001+53.58, 22.91 LT			88.6'
		1002+42.71, 23.77 LT	
1001+65.83, 42.48 RT			61.8'
		100+54.80, 24.31 LT	

ITEM 609.12 VERT CURB TYPE 1 - CIRCULAR			
STATION	TO	STATION	LENGTH
1001+26.63, 23.24 RT			5.6'
		1001+32.28, 23.59 RT	

ITEM 609.221 TERMINAL CURB TYPE 1			
STATION	TO	STATION	LENGTH
100+54.80, 24.31 LT			14'
		100+69.00, 24.66 LT	
1001+23.58, 22.57 LT			8'
		1001+31.56, 22.66 LT	
1001+31.56, 22.66 LT			8'
		1001+39.58, 22.77 LT	
1001+45.58, 22.83 LT			8'
		1001+53.58, 22.91 LT	
1001+64.31, 40.67 RT			2.3'
		1001+65.83, 42.48 RT	
1002+42.71, 23.76 LT			8'
		1002+51.04, 24.11 LT	
1002+57.46, 23.99 LT			8'
		1002+66.14, 24.14 LT	

ITEM 609.222 TERMINAL CURB TYPE 1 - CIRCULAR			
STATION	TO	STATION	LENGTH
1001+32.28, 23.59 RT			8'
		1001+40.12, 25.16 RT	
1001+46.14, 27.29 RT			8'
		1001+53.21, 31.05 RT	
1001+60.40, 36.58 RT			
		1001+64.31, 40.67 RT	5.7'

STATION POINTS				
POINT	STATION	OFFSET	X-COORD	Y-COORD
1	100+54.80	24.31 LT	1613597.52	613718.12
2	100+69.00	24.66 LT	1613603.07	613731.19
3	100+97.76	27.77 LT	1613612.16	613758.65
4	101+01.72	29.01 LT	1613612.67	613762.77
5	101+26.52	42.78 LT	1613610.41	613791.05
6	1001+60.62	36.79 RT	1613607.98	613798.37
7	1001+52.95	30.90 RT	1613603.40	613806.88
8	1001+46.27	27.35 RT	1613598.75	613812.85
9	1001+39.98	25.13 RT	1613593.92	613817.45
10	1001+35.34	24.05 RT	1613590.12	613820.33
11	1001+32.28	23.59 RT	1613587.51	613822.00
12	1001+31.37	23.48 RT	1613586.73	613822.47
13	1001+23.58	22.57 LT	1613598.45	613867.68
14	1001+31.58	22.66 LT	1613605.79	613864.50
15	1001+39.25	22.76 LT	1613612.83	613861.46
16	1001+45.91	22.84 LT	1613618.95	613858.80
17	1001+53.58	22.91 LT	1613625.97	613855.73
18	1002+42.88	23.81 LT	1613707.43	613820.36
19	1002+50.86	24.10 LT	1613714.61	613817.68
20	1002+57.80	24.00 LT	1613720.76	613815.10
21	1002+65.79	24.14 LT	1613727.97	613812.47
22	1002+66.14	24.15 LT	1613728.28	613812.36

CURVEDATA						
CURVEDATA#1						
PI	D	Δ	R	L	T	E
2+52.04	81°51'04.0"	9°22'22.0" LT	70.00'	11.45'	5.74'	0.23'
CURVEDATA#2						
PI	D	Δ	R	L	T	E
2+79.25	71°37'11.0"	30°04'58.3" LT	80.00'	42.00'	21.50'	2.84'
CURVEDATA#3						
PI	D	Δ	R	L	T	E
3+22.63	114°35'29.6"	49°09'52.9"	50.00'	42.90'	22.87'	4.98'
CURVEDATA#4						
PI	D	Δ	R	L	T	E
1003+27.41	9°32'57.5"	18°22'15.4" LT	600.00'	192.38'	97.02'	7.79'

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2532900

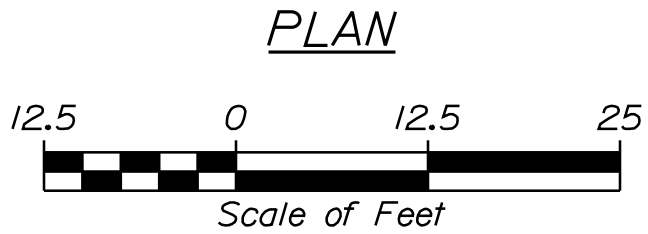
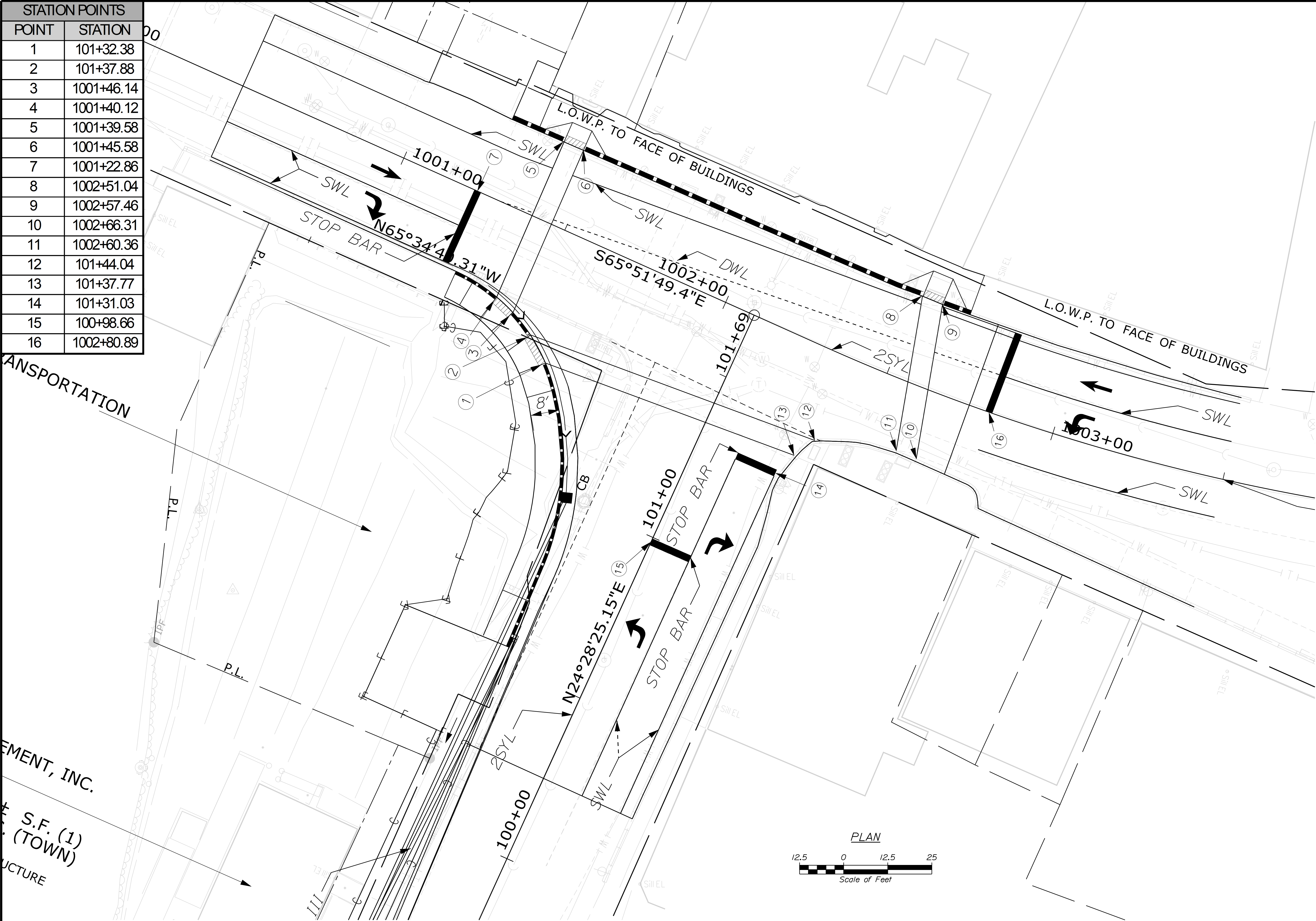
WIN
025329.00
HIGHWAY PLANS

DOVER FOXCROFT
ROUTES 7 & 15
CURB GEOMETRY

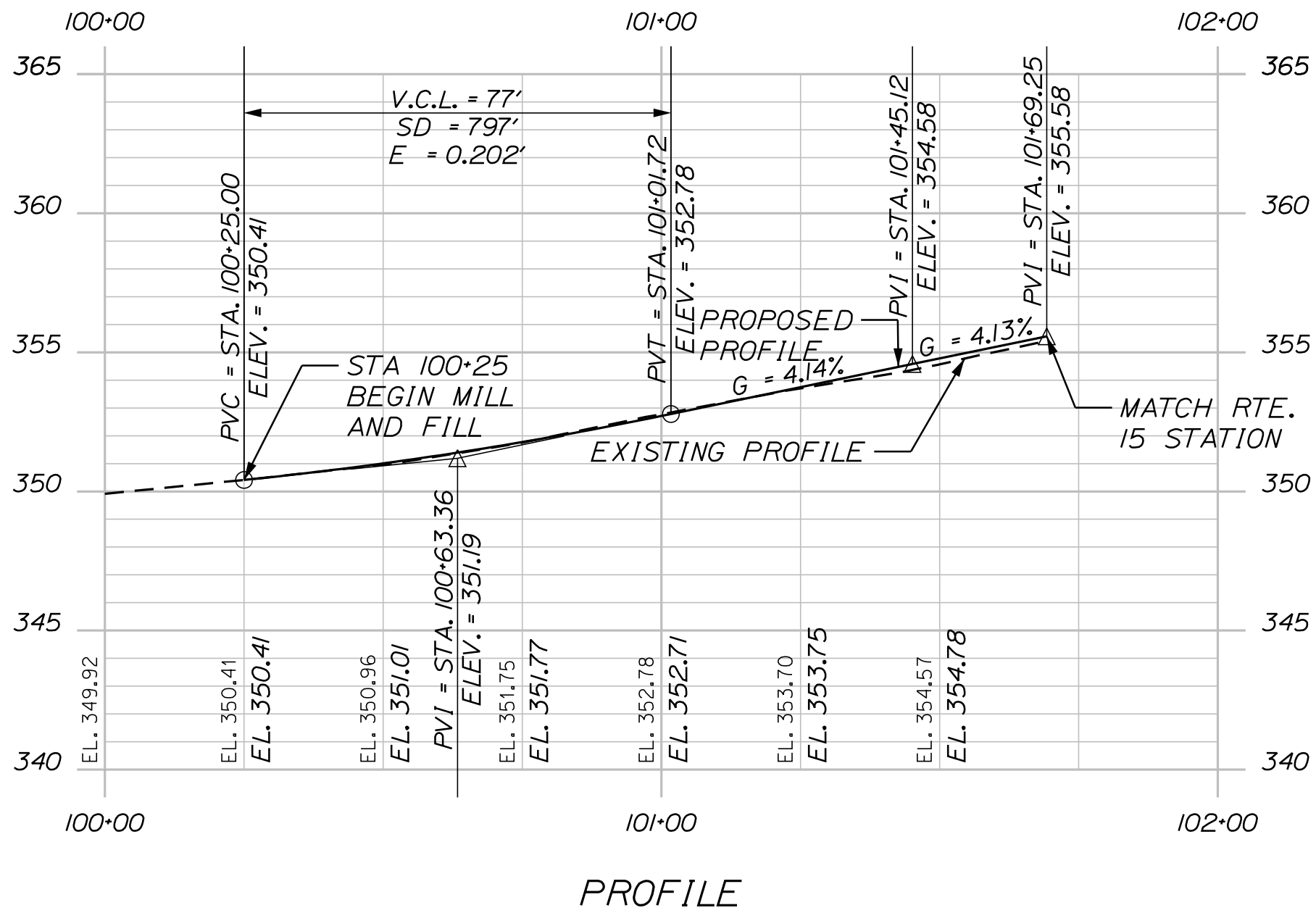
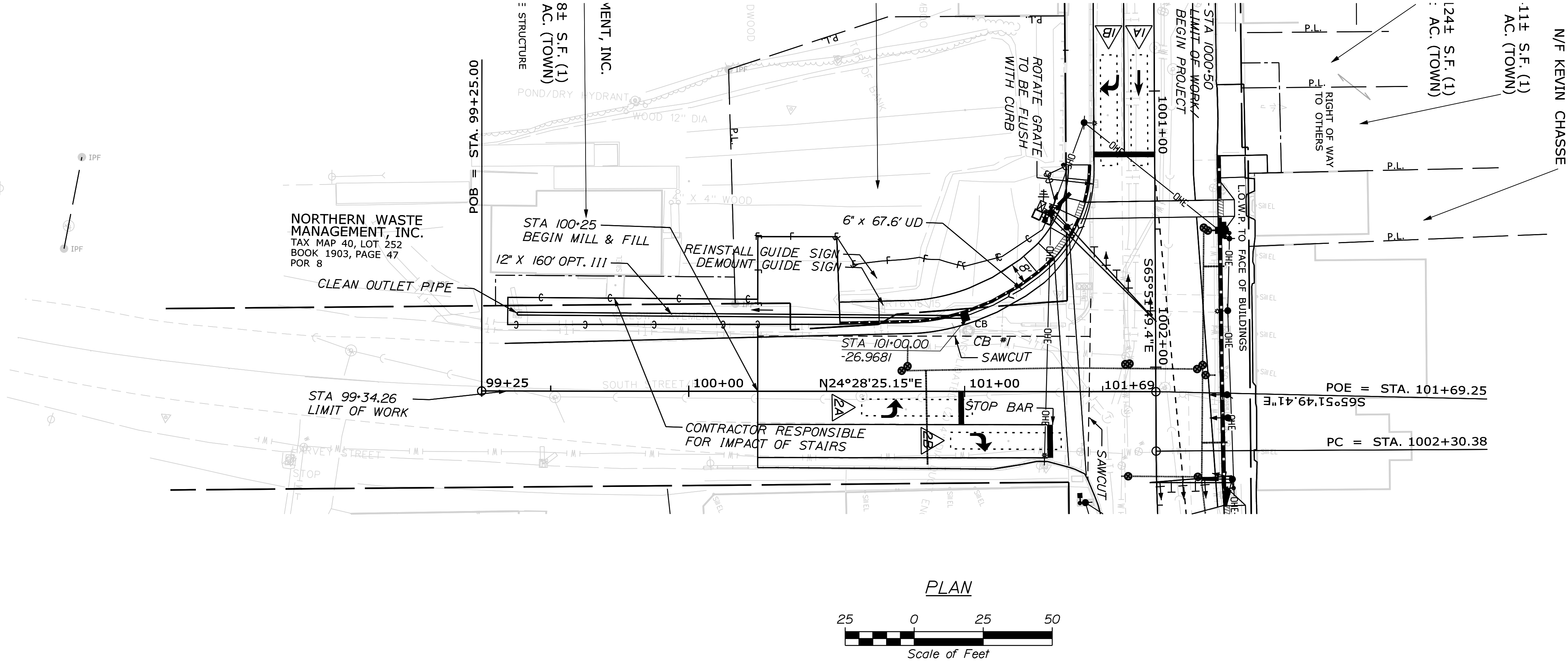
SHEET NUMBER
16
OF 29

PROJ. MANAGER	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
DESIGN-DETAILED					
CHECKED-REVIEWED					
DESIGN-DETAILED					
REVISIONS 1					
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

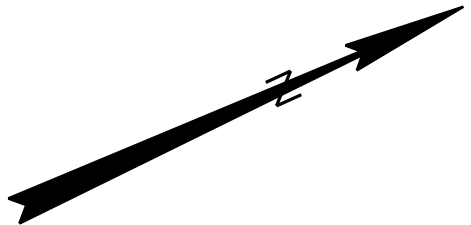
STATION POINTS	
POINT	STATION
1	101+32.38
2	101+37.88
3	1001+46.14
4	1001+40.12
5	1001+39.58
6	1001+45.58
7	1001+22.86
8	1002+51.04
9	1002+57.46
10	1002+66.31
11	1002+60.36
12	101+44.04
13	101+37.77
14	101+31.03
15	100+98.66
16	1002+80.89



STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2532900		WIN 025329.00		HIGHWAY PLANS	
DOVER FOXCROFT ROUTES 7 & 15 STRIPING		PROJ. MANAGER	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
		DESIGNED-DETAILED	CHECKED-REVIEWED	DESIGNED-DETAILED	DESIGNED-DETAILED	DESIGNED-DETAILED	DESIGNED-DETAILED
		REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4	REVISIONS 5	REVISIONS 6
		REVISIONS 7	REVISIONS 8	REVISIONS 9	REVISIONS 10	REVISIONS 11	REVISIONS 12
SHEET NUMBER		17					
OF 29							



ENTER THEATER, INC. KEVIN P. CHASSE
TAX MAP 40, LOT 5 TAX MAP 40, LOT 6
BOOK 1525, PAGE 57 BOOK 870, PAGE 248
OR NO. 11 OR NO. 10

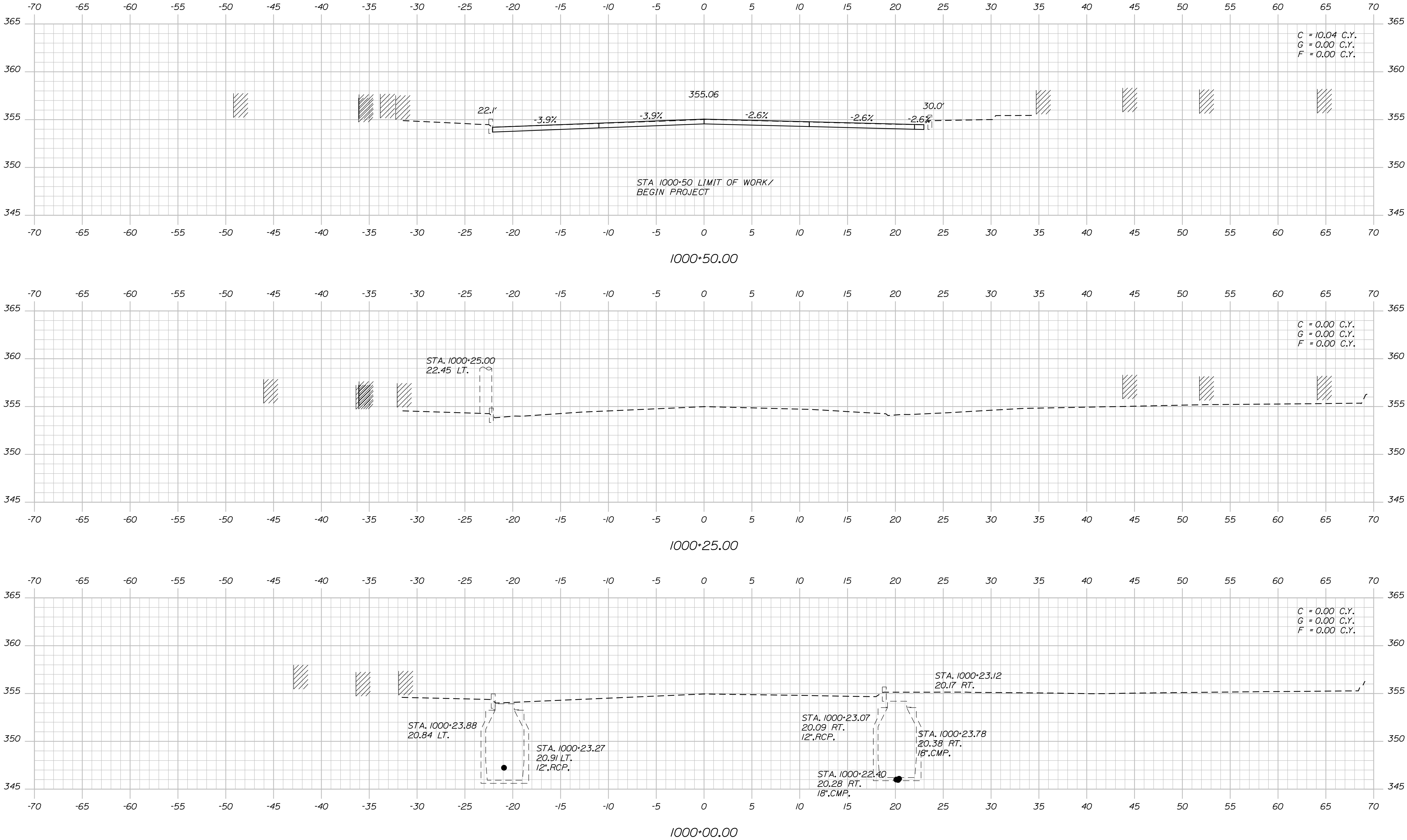


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DEPARTMENT OF TRANSPORTATION				19	
2532900				OF 29	
HIGHWAY PLANS		WIN		25329.00	
DATE		BY		DATE	
SIGNATURE		T. WHITE		AUG. 2024	
P.E. NUMBER					
DATE					
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REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

Date:12/4/2024

Username: Matthew Mihalju

Filename: ... \MSTAD20_XSECT_1000+00_001.dgn Division: HIGHWAY

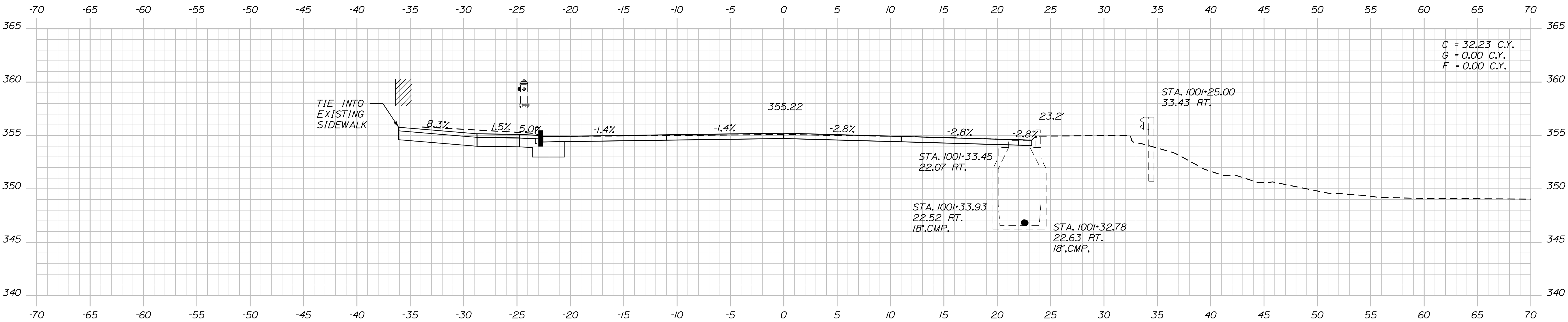


STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2532900		WIN		25329.00		HIGHWAY PLANS	
DOVER-FOXCROFT		ROUTES 7 & 15		CROSS SECTIONS		SHEET NUMBER		20		OF 29	
PROJ. MANAGER		BY		DATE		SIGNATURE		P.E. NUMBER		DATE	
CHECKED-REVIEWED		T. WHITE		AUG 2024		C. RUSSELL					
DESIGN-DETAILED						DESIGN-DETAILED					
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REVISIONS 3						REVISIONS 4					
FIELD CHANGES											

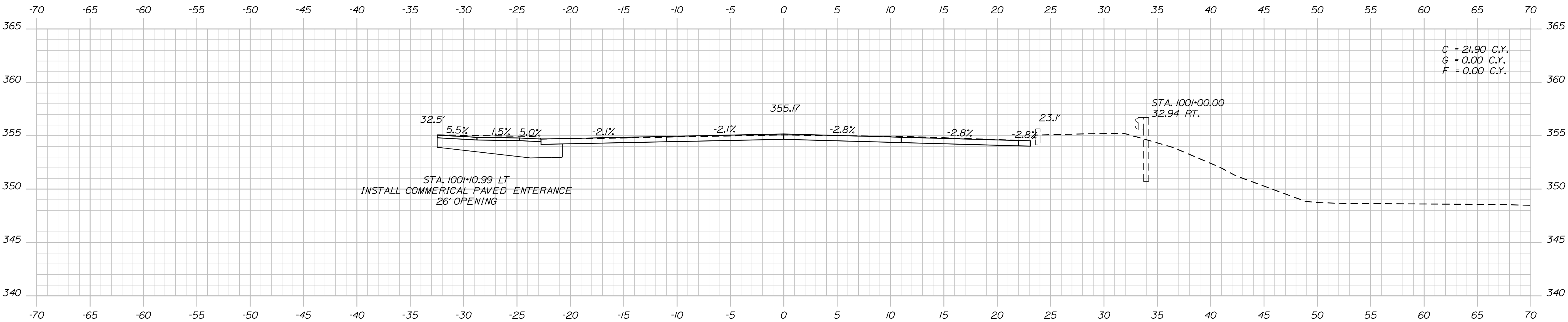
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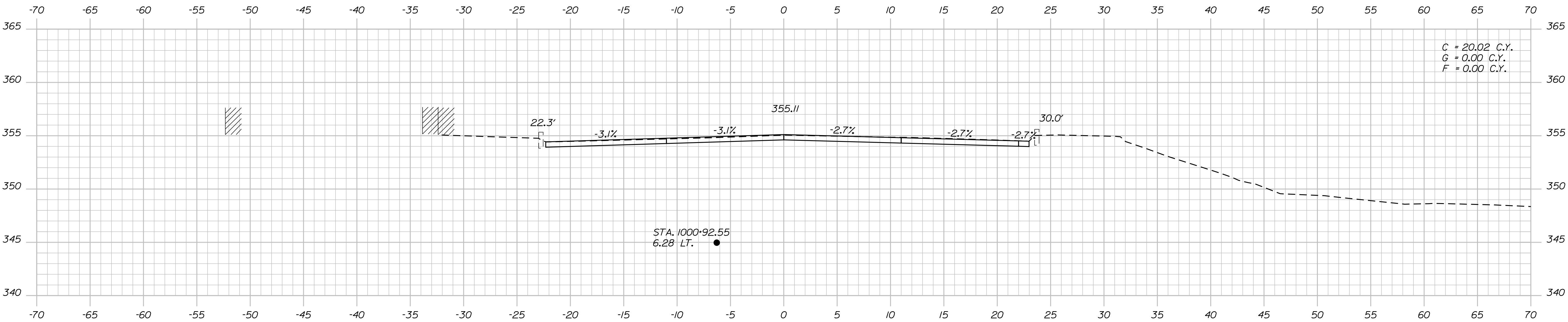
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1001+25.00



1001+00.00



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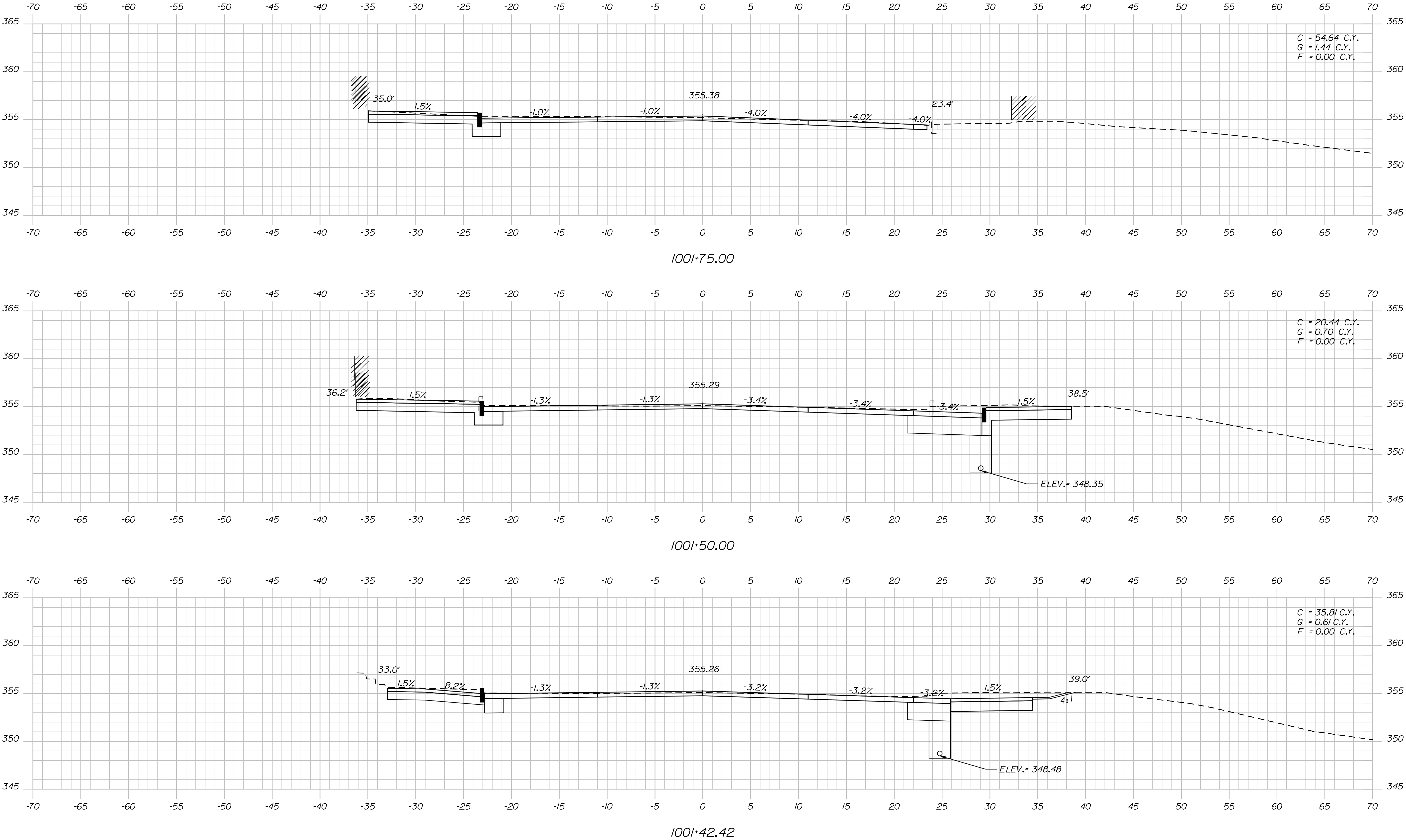
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DESIGNED-DETAILED	C. RUSSELL		
DESIGNED-DETAILED			
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REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

DOVER-FOXCROFT
ROUTES 7 & 15
CROSS SECTIONS

Date:12/4/2024

Username: Matthew Mihalju

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2532900

WIN
25329.00

HIGHWAY PLANS

DOVER-FOXCROFT
ROUTES 7 & 15

CROSS SECTIONS

SHEET NUMBER

22

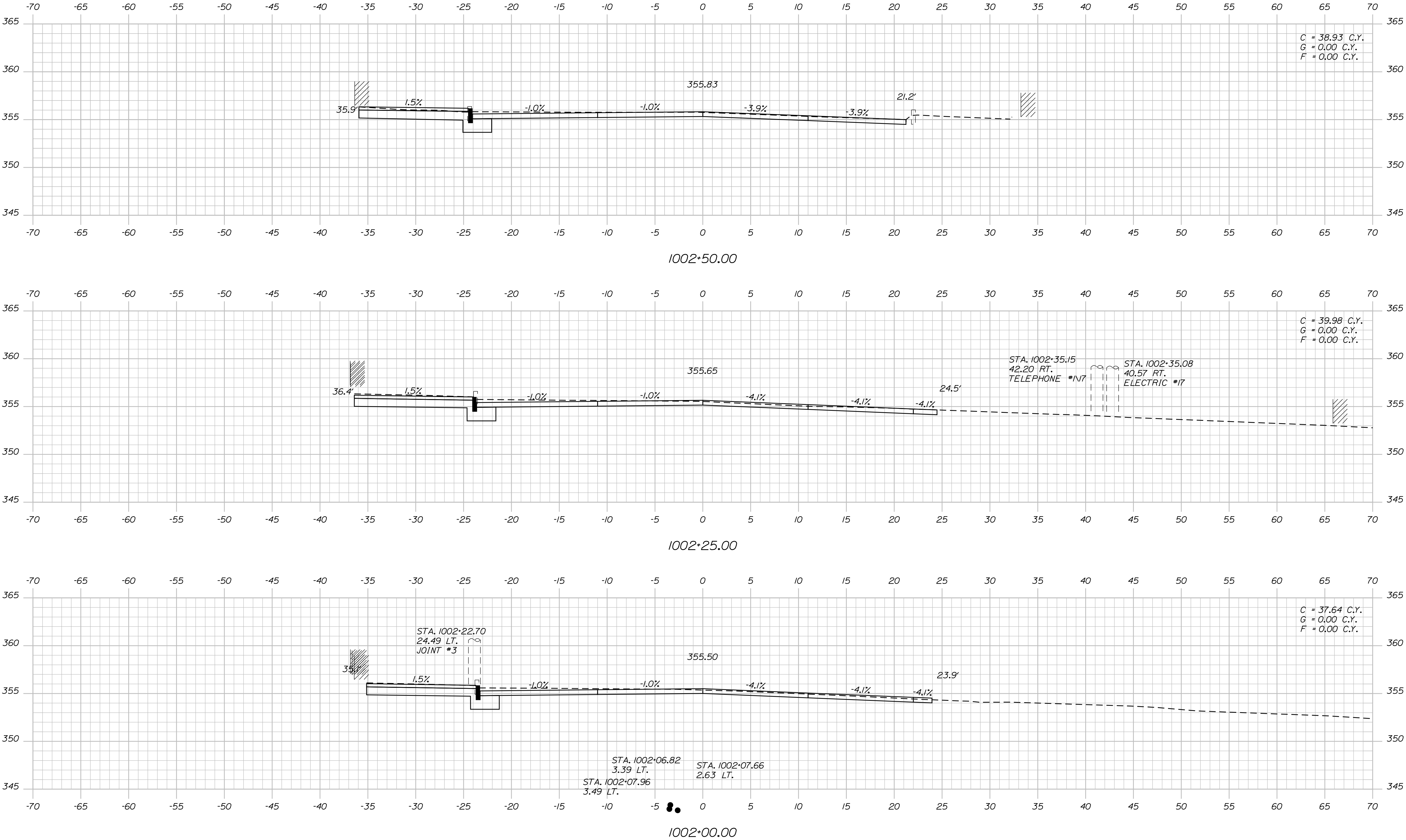
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DESIGNED-DETAILED	T. WHITE	AUG 2024			
DESIGNED-DETAILED	C. RUSSELL				
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REVISIONS 4					
FIELD CHANGES					

Date:12/4/2024

Username: Matthew Mihalou

Filename: ... \MSTAD23_XSECT_1002+00_004.dgn Division: HIGHWAY



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2532900

WIN
25329.00

HIGHWAY PLANS

DOVER-FOXCROFT
ROUTES 7 & 15

CROSS SECTIONS

SHEET NUMBER

23

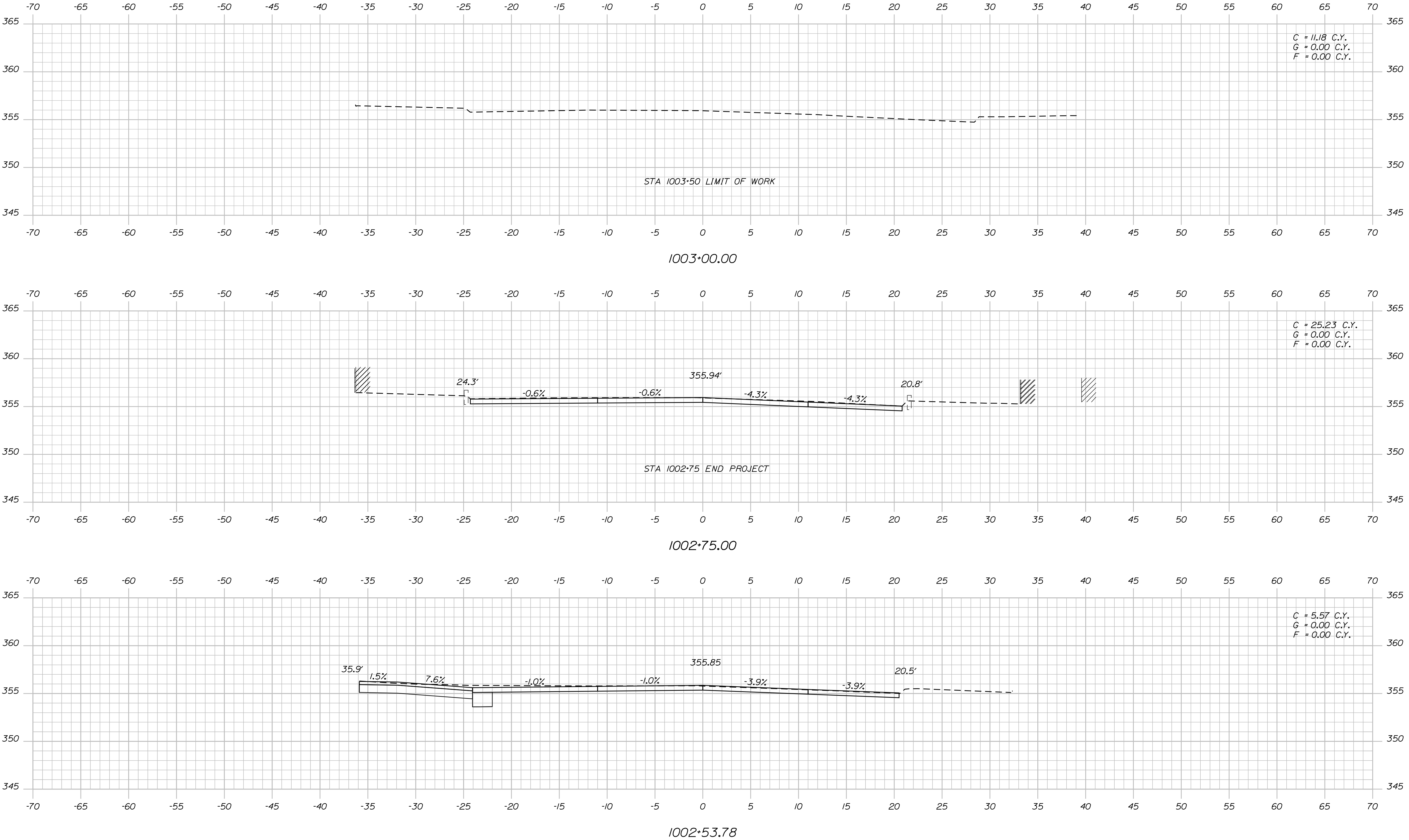
OF 29

PROJ. MANAGER	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
CHECKED-REVIEWED	T. WHITE	AUG 2024			
DESIGN-DETAILED	C. RUSSELL				
DESIGN-DETAILED					
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REVISIONS 2					
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REVISIONS 4					
FIELD CHANGES					

Date:12/4/2024

Username: Matthew Mhau

Filename: ... \MSTAD24_XSECT_1002+53_005.dgn Division: HIGHWAY



STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

2532900

WIN

25329.00

HIGHWAY PLANS

DOVER-FOXCROFT

ROUTES 7 & 15

CROSS SECTIONS

SHEET NUMBER

24

OF 29

PROJ. MANAGER

CHECKED-DETAILED

DESIGN-DETAILED

DESIGN-DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

BY

DATE

T. WHITE

AUG 2024

SIGNATURE

P.E. NUMBER

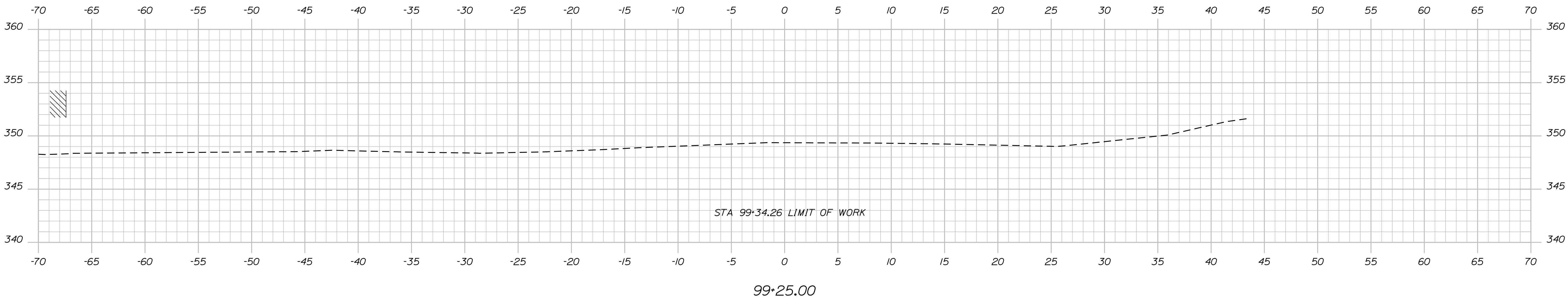
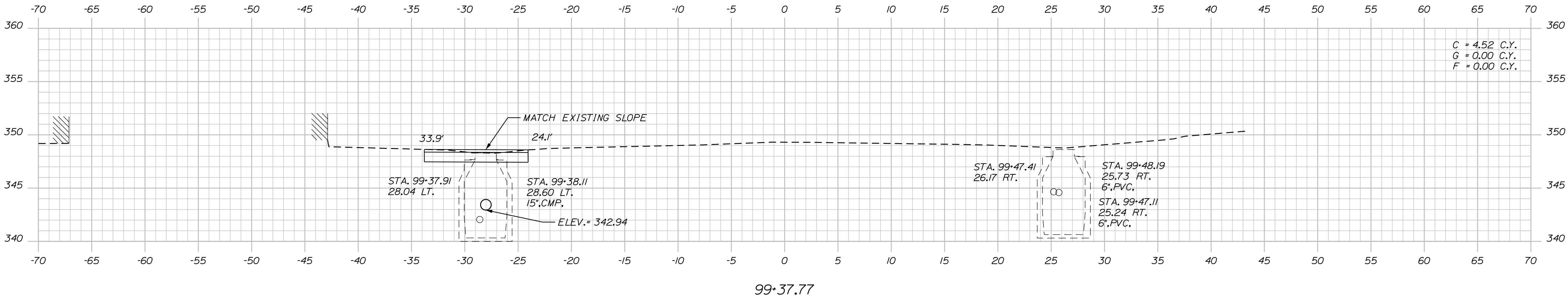
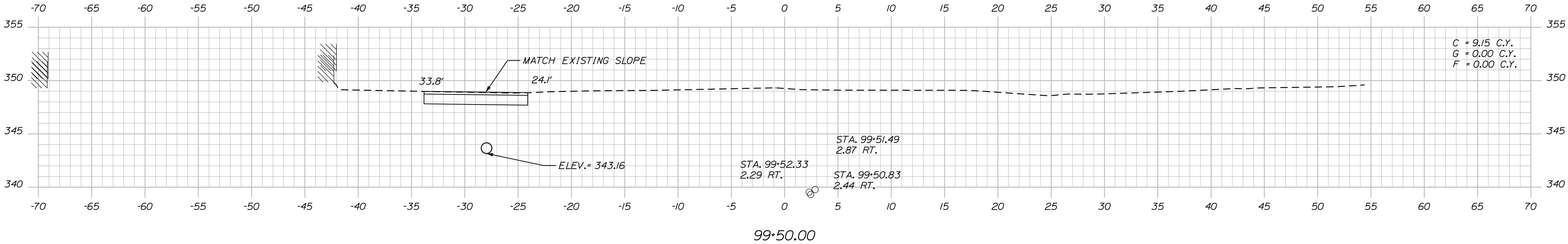
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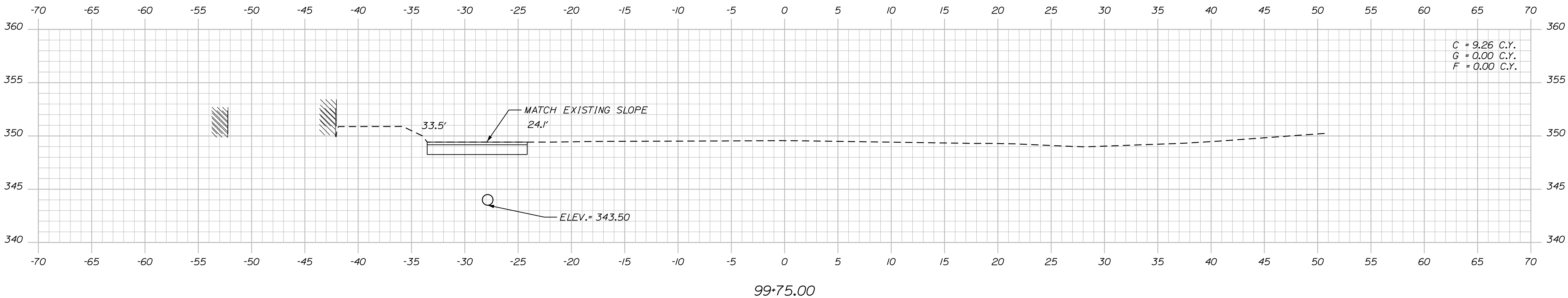
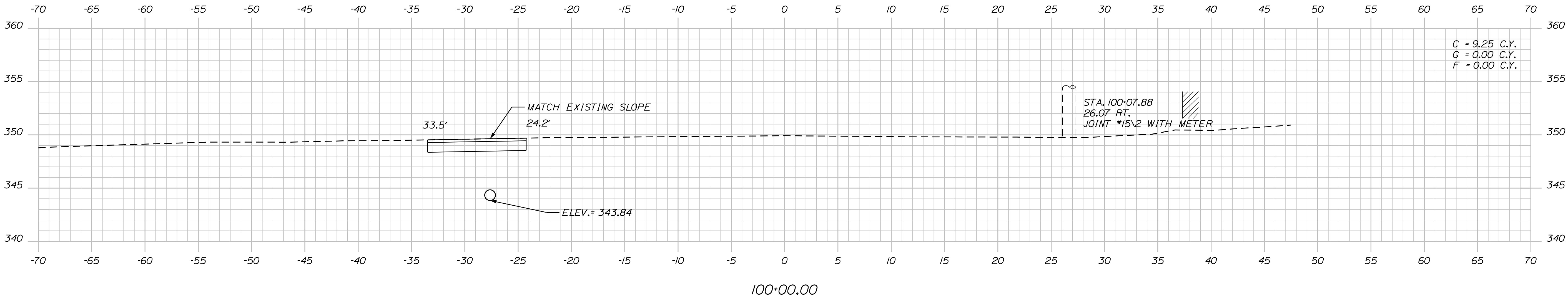
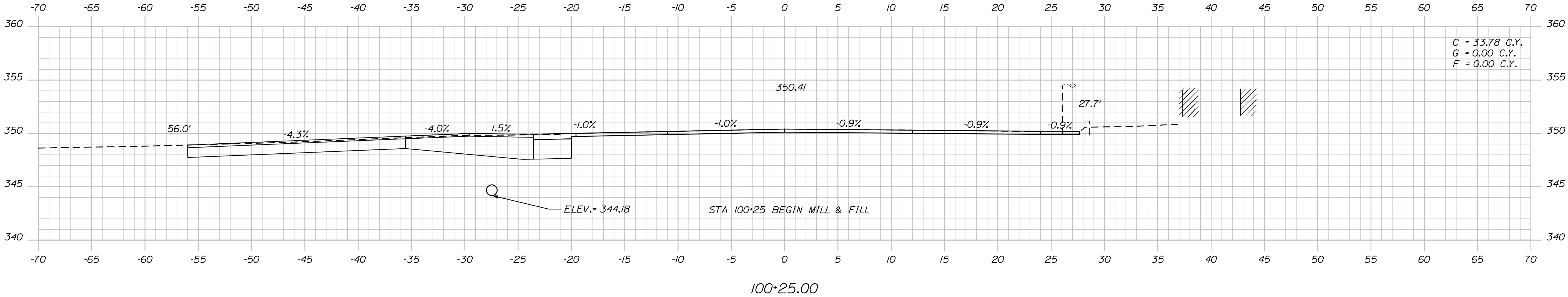


Date:12/4/2024

Username: Matthew Mihalju

Division: HIGHWAY

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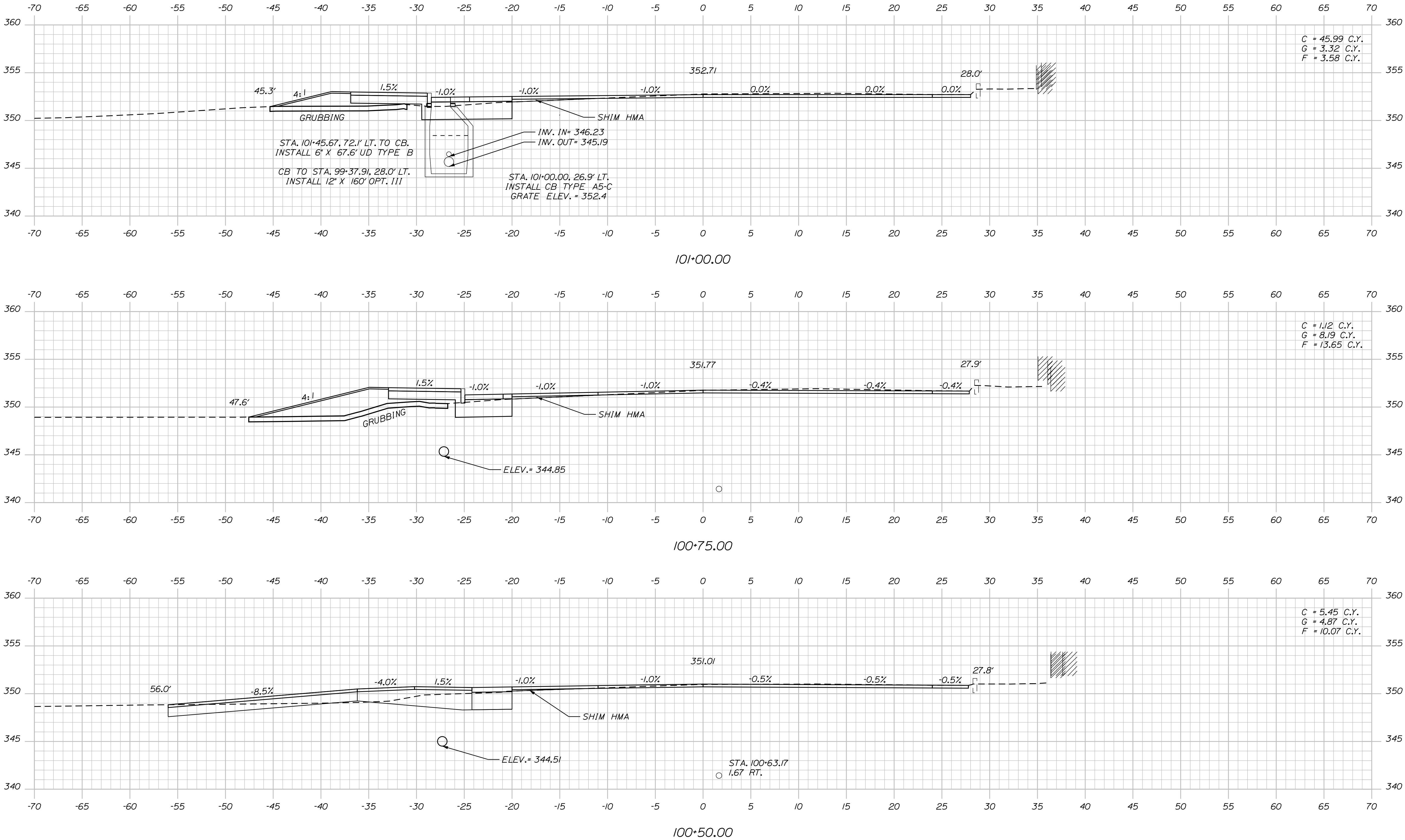
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2532900		WIN 25329.00		HIGHWAY PLANS	
DOVER-FOXCROFT ROUTES 7 & 15		CROSS SECTIONS		SHEET NUMBER 26 OF 29			
PROJ. MANAGER		BY		DATE		SIGNATURE	
CHECKED-REVIEWED		T. WHITE		AUG 2024		P.E. NUMBER	
DESIGN-DETAILED		C. RUSSELL				DATE	
DESIGN-DETAILED							
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Date:12/4/2024

Username: Matthew Mihalju

Division: HIGHWAY

Filename: ... \MSTAD27_XSECT_100+50_003.dgn



PROJ. MANAGER	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
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CHECKED-REVIEWED					
DESIGN-DETAILED	T. WHITE	AUG 2024			
DESIGN-DETAILED	C. RUSSELL				
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FIELD CHANGES					

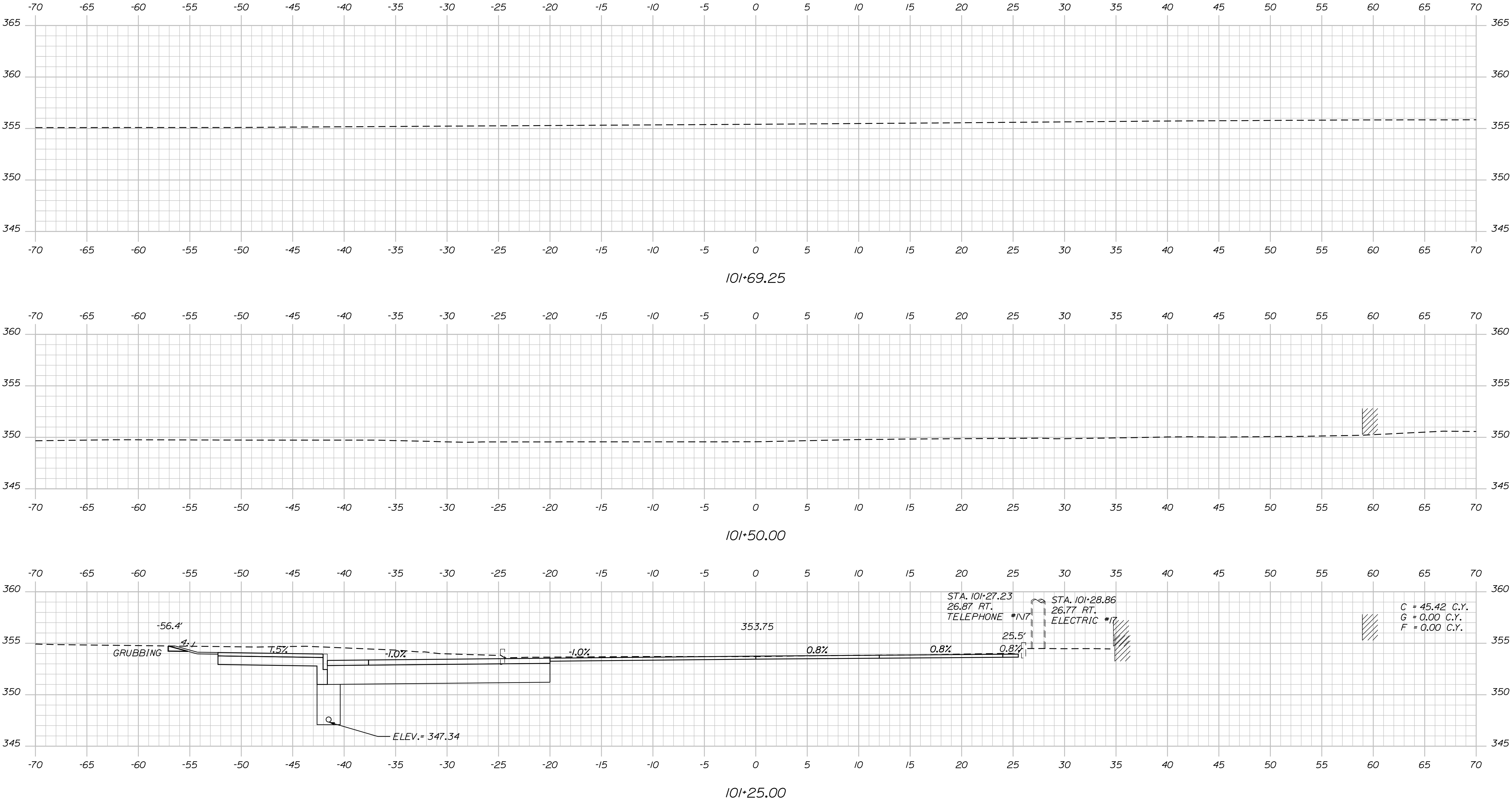
DOVER-FOXCROFT
ROUTES 7 & 15
CROSS SECTIONS

Username: Matthew Mihalju

Date:12/4/2024

Division: HIGHWAY

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STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
2532900	
WIN	25329.00
HIGHWAY PLANS	

PROJ. MANAGER	BY	DATE	SIGNATURE
DESIGN-DETAILED	CHECKED-REVIEWED	AUG 2024	P.E. NUMBER
DESIGN-DETAILED	DESIGN-DETAILED	T. WHITE	DATE
REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4
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DOVER-FOXCROFT	
ROUTES 7 & 15	
CROSS SECTIONS	

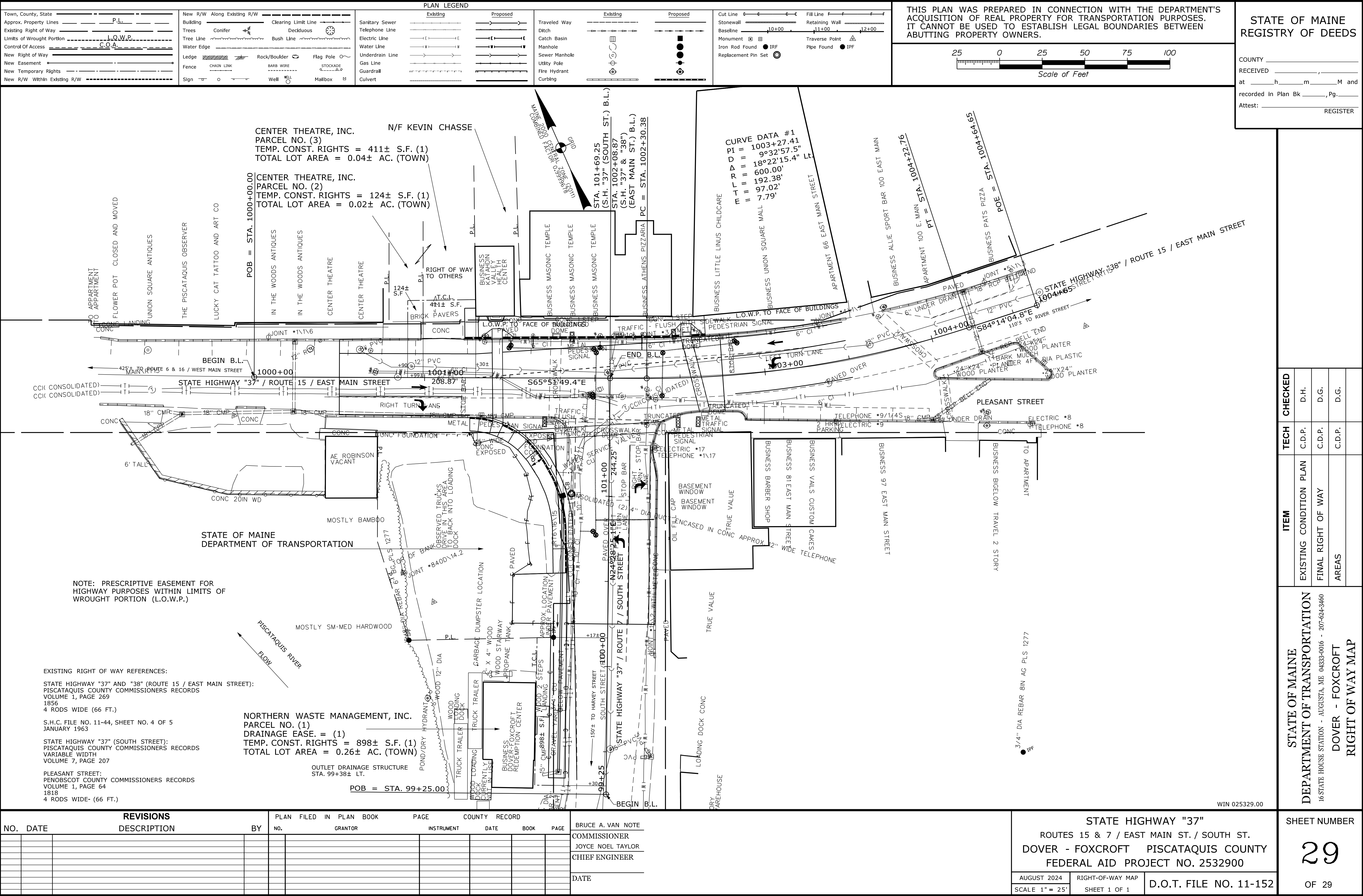
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OF 29	

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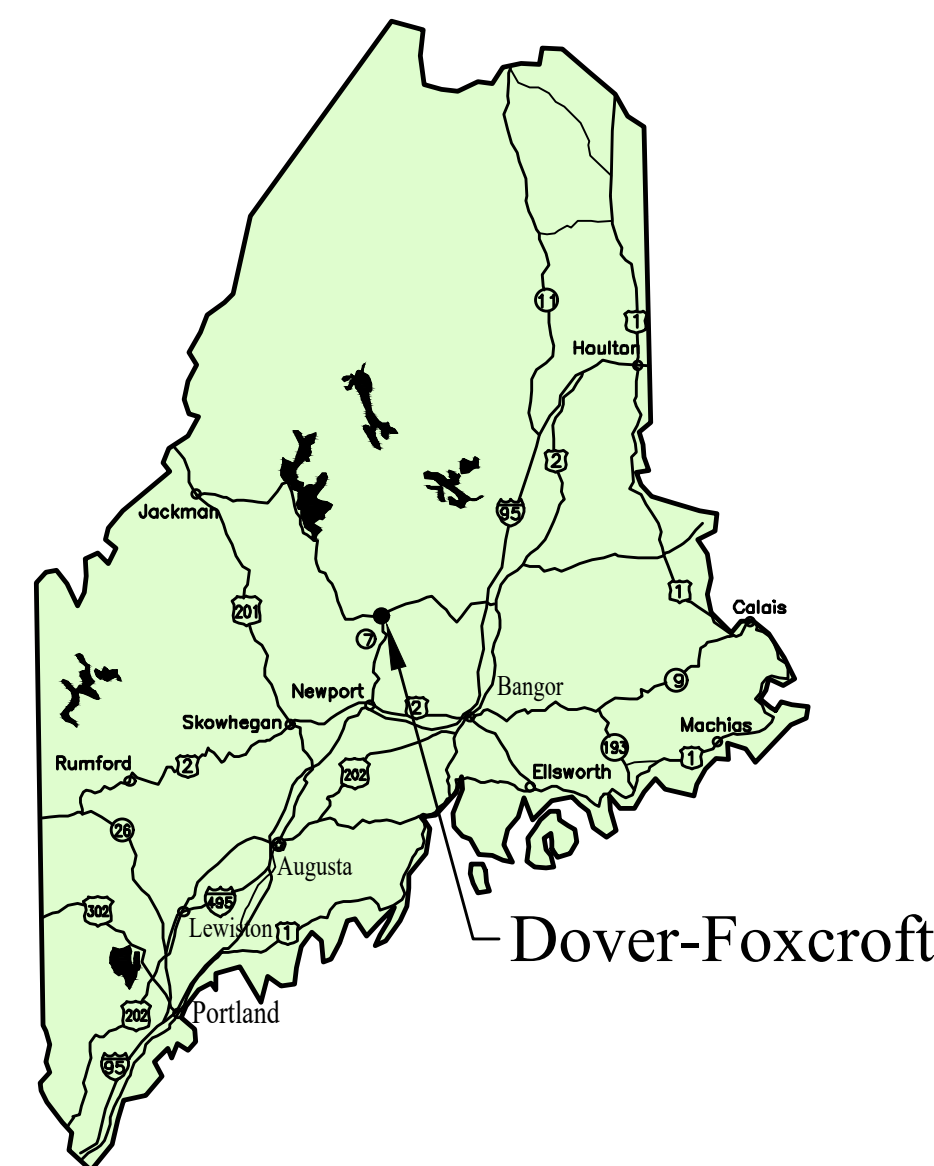
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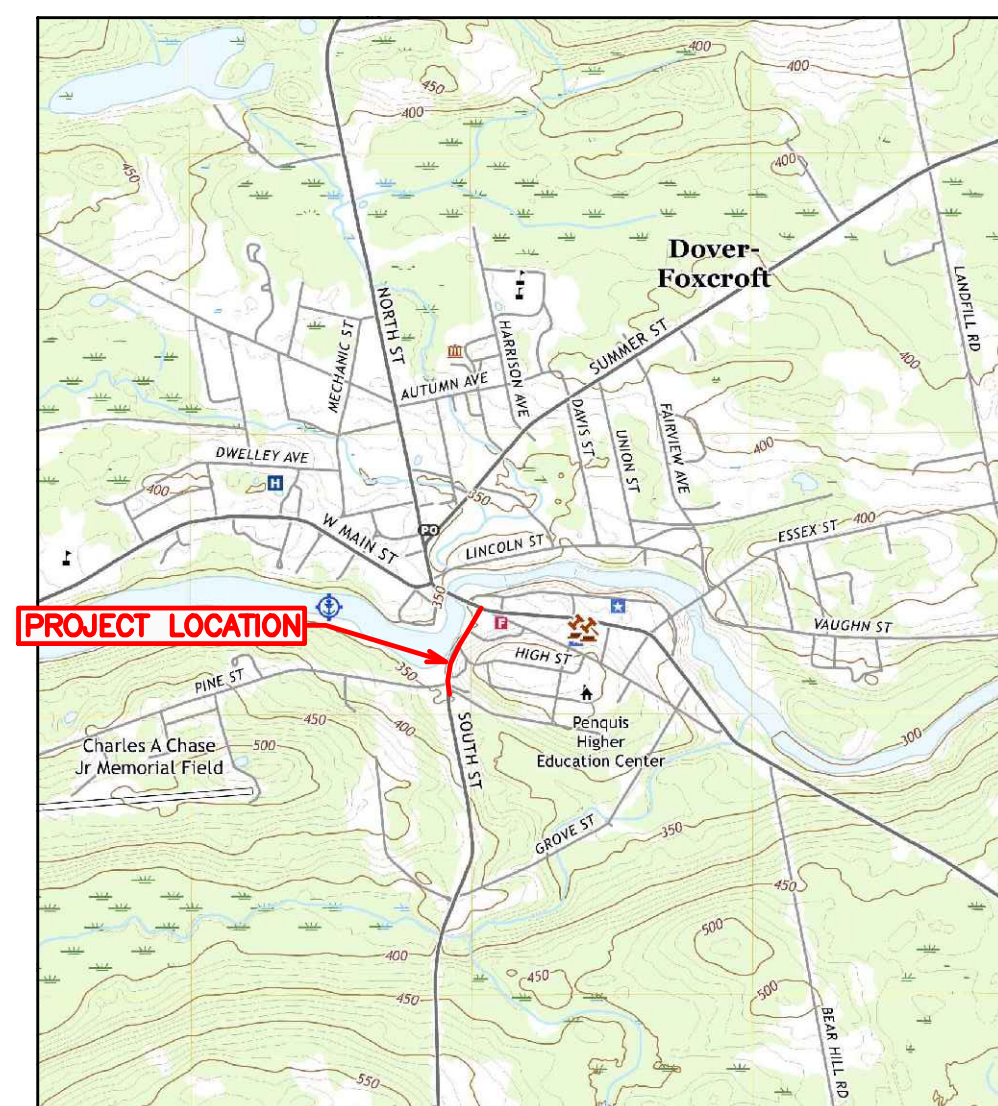
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Project Location



Site Location



Drawing Index

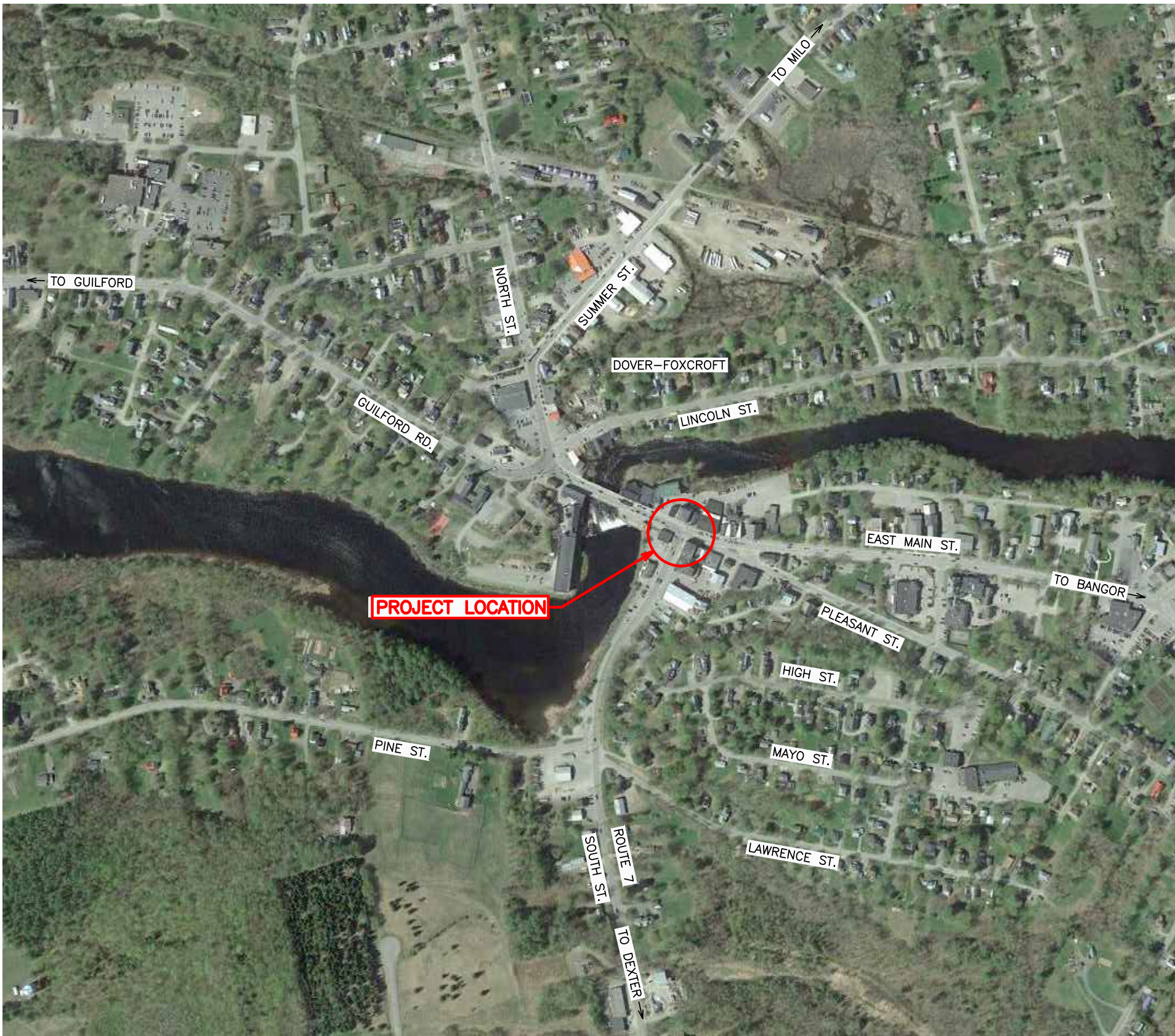
- 1 Site Location, General Notes, Legend, Plan & Profiles
- 2 Miscellaneous Details

Water Utility Related
Project Drawings
for
Dover-Foxcroft Route #7/#15 Intersection
Safety Improvements
Maine DOT Project #25329
Water Utility:
Dover-Foxcroft Water District
Dover-Foxcroft, Maine

DIRIGO ENGINEERING

2 Dirigo Drive
Fairfield, Maine 04937





SITE LOCATION MAP
NOT TO SCALE

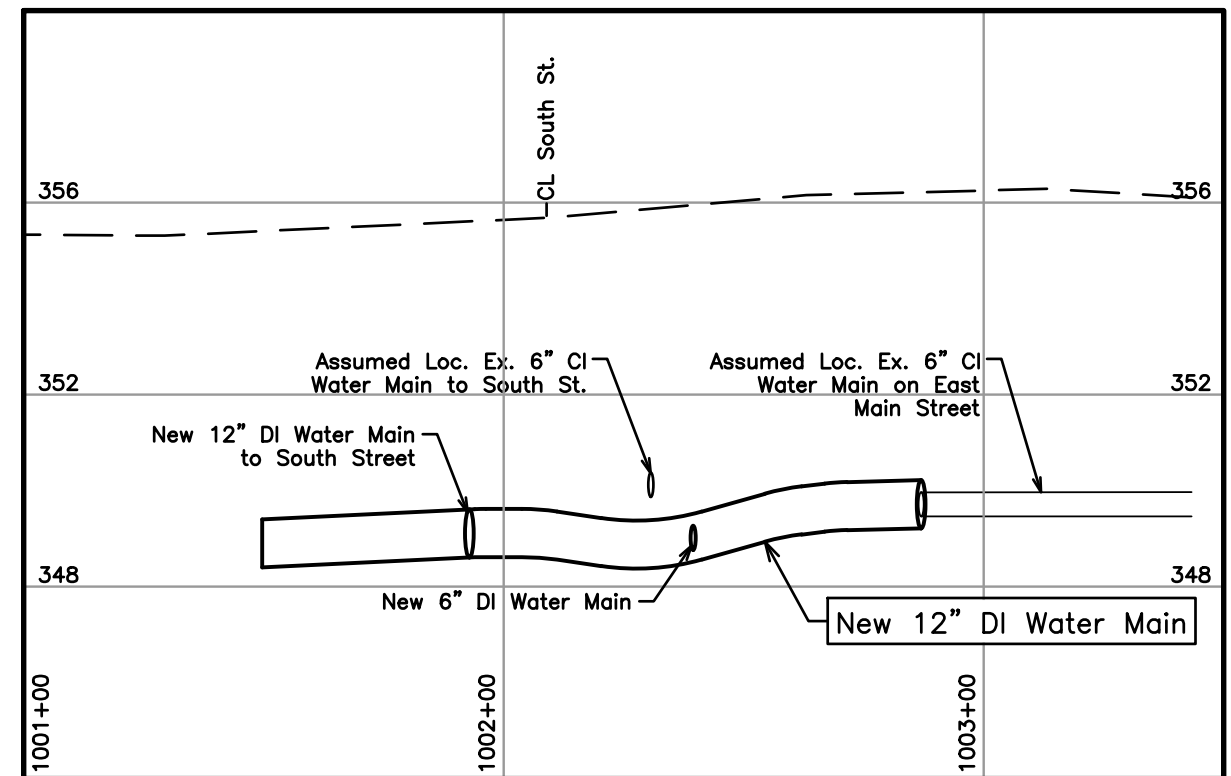
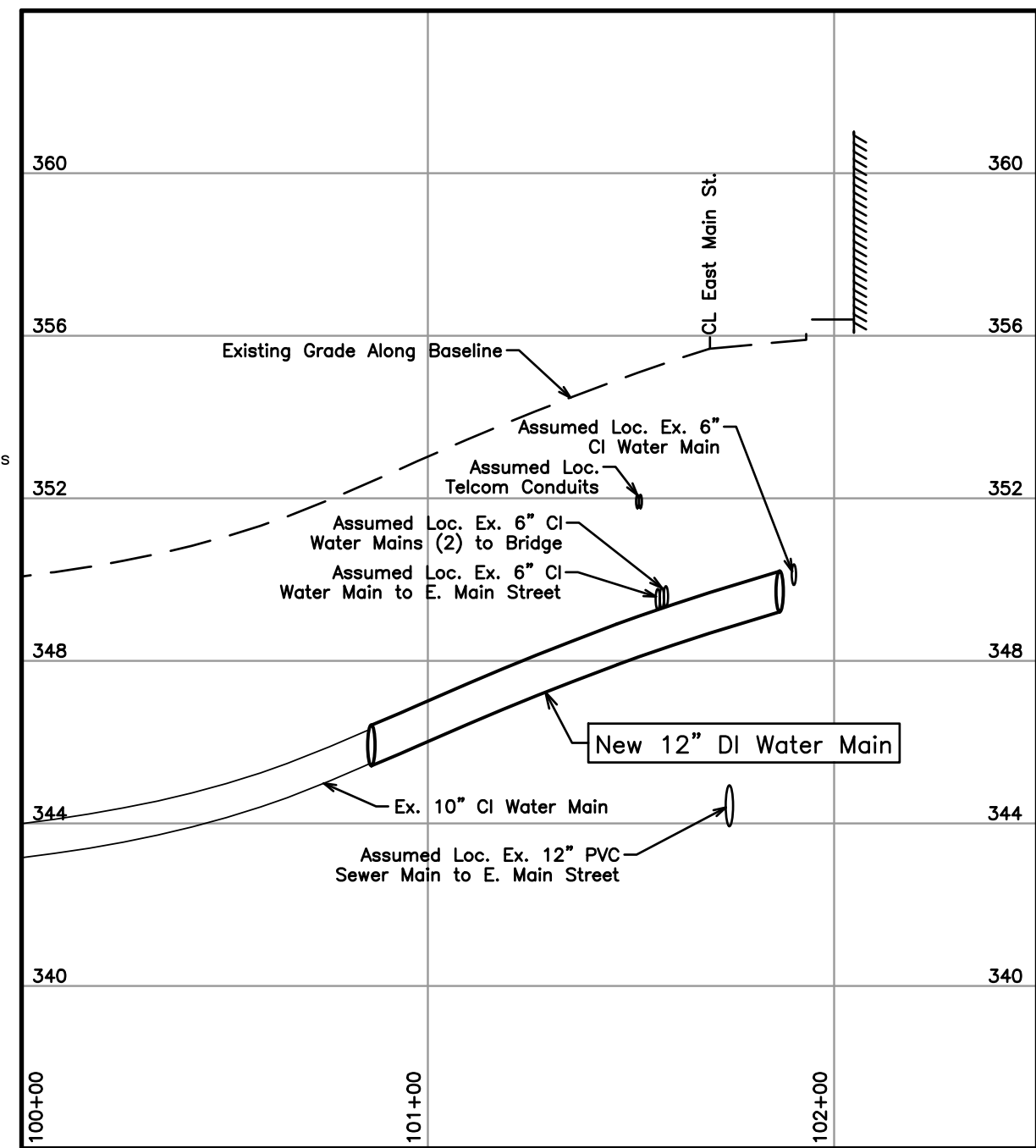
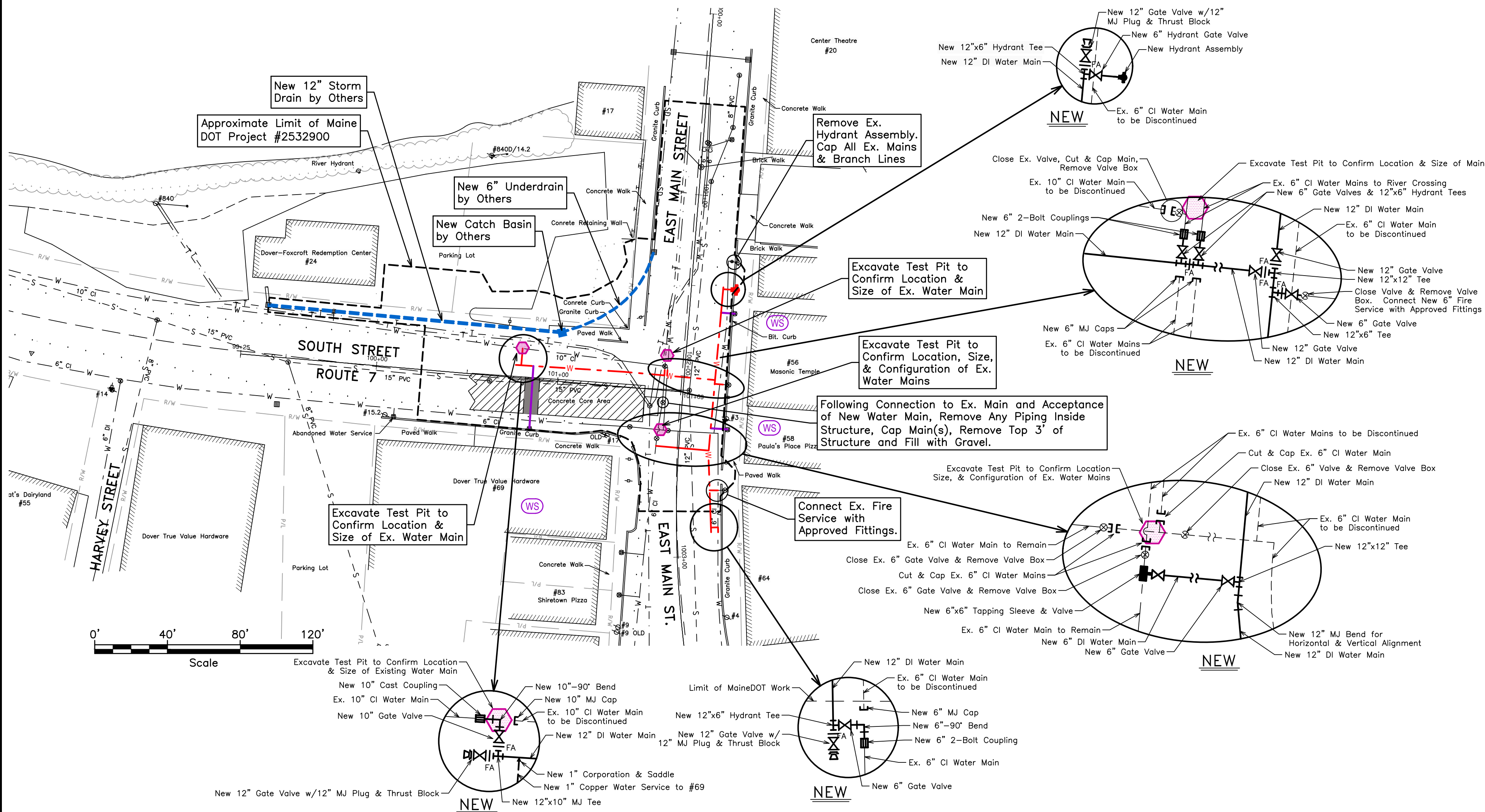


NOTES:

- Vertical datum is based on NAVD88. Horizontal datum is NAD83 (2011) State Plane Maine East. Topographic survey by Dirigo Engineering. Absolute elevations are approximate, but spot elevations relative to benchmarks are accurate.
- The location of the existing utilities shown on the plans were compiled from field survey and various other sources. Locations are approximate and not guaranteed to be accurate nor is it guaranteed that all utilities are shown.
- Right-of-Way lines and property lines shown on the drawings are assumed/approximate only (based on field evidence, municipal records, and other sources) and are not to be used for conveyances.
- Contractor shall design, install, and maintain Erosion Control Measures in conformance with *Maine Erosion and Sediment Control Practices Field Guide for Contractors* (latest edition). Measures shall be installed prior to any construction work.
- Excavate Test Pits prior to start of any Construction Work. Pipe installation will not be allowed until Test Pits are completed.
- Cleanup of Work Areas shall be done concurrently with Pipe Installation.
- Backfilling and Compaction shall be strictly monitored. It is highly recommended that a vibratory roller be used for Compaction of all Trenches.
- Contractor shall Coordinate with the Electric Utility regarding holding or bracing of utility poles that may need to be held during construction. Any costs related to this shall be borne by the Contractor.
- All Existing Hydrants and Branch Valves along the pipe route are to be carefully removed (by cutting and capping at the main) and delivered in good condition to the Owner (Typical).
- Valve Boxes on discontinued mains shall be removed and delivered to the Owner. Engineer will designate which Valve Boxes are to be removed.
- Provide 6"-0" min. cover over new mains and services. Depth of cover shall be measured from the existing grade (typical).
- (WS) indicate new water service to be installed. New water services shall be installed for each house from the new water main to and including new curb stops w/box at location of existing curb stop. Existing service pipe material at curb stop shall be noted. If existing service pipe is lead or galvanized, this information shall be reported to property owner and Water District.
- Locations of new water services shall be coordinated with the Owner. It is the Contractor's responsibility to locate all existing and new water services. New water services shall be installed in approximately the same location as the existing services.
- Water service shall be maintained to customers at all times. If needed, the Contractor shall provide temporary services. Temporary service method must be approved by the District and shall be at the Contractor's expense.
- Utilize Field-Lok gaskets on all push-on joints within 45' of bends.

GENERAL LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
⊙	MANHOLE	=====	PAVED ROAD OR DRIVE
--- S ---	SANITARY SEWER MAIN	-----	GRAVEL ROAD OR DRIVE
--- FM ---	FORCE MAIN	---	TRAIL
	FORCE MAIN CATCH BASIN	---+---	FENCE - BARBED WIRE OR CHAIN LINK
--- SD ---	STORM DRAIN	---+---	FENCE - POST & RAIL, PICKET
--->---	CULVERT	X	LIGHT
---	DITCH	=====	RETAINING WALL
---	PIPE DAYLIGHT	=====	GUARD RAIL
---	TOP/BOTTOM OF SLOPE OR EDGE OF TRAVEL LANE	⊙	TREE (DECIDUOUS)
--- W ---	WATER MAIN - EXISTING	⊙	TREE (CONIFEROUS)
--- W ---	WATER MAIN - NEW	⊙	BUSH
⊙ OR	GATE VALVE	⊙	SHRUB
⊙	TAPPING SLEEVE AND VALVE	⊙	HEDGE
⊙	HYDRANT TEE W/VALVE	⊙	STUMP
⊙	HYDRANT	⊙	ROCK
⊙	FOSTER ADAPTOR	⊙	SIGN
⊙	CURB STOP	⊙	EDGE OF WOODS
⊙	UTILITY POLE	⊙	STONE WALL (FIELD)
⊙	GUY WIRE	⊙	STONE WALL (LAWN/LANDSCAPED)
⊙	BENCH MARK	⊙	TEST PIT
⊙	SURVEY STATION	⊙	LEDGE OUTCROP
⊙	PROPERTY PIN	⊙	LEDGE BORING
⊙	IRON PIN	⊙	REFUSAL
⊙	GRANITE MONUMENT	⊙	NO REFUSAL
---	PROPERTY LINE	⊙	PROPOSED WATER SERVICE (SEE NOTES)
---	RIGHT-OF-WAY	⊙	PROPOSED WATER SERVICE OFF LOW PRESSURE PIPE
---	UNDERGROUND ELECTRICAL	⊙	HYDRANT TO BE REMOVED
---	OVERHEAD ELECTRICAL		
---	UNDERGROUND TELEPHONE		
TJB	TELEPHONE JUNCTION BOX		

NOTE: NOT ALL ITEMS IN LEGEND WILL BE NECESSARILY SHOWN ON THE PLANS.

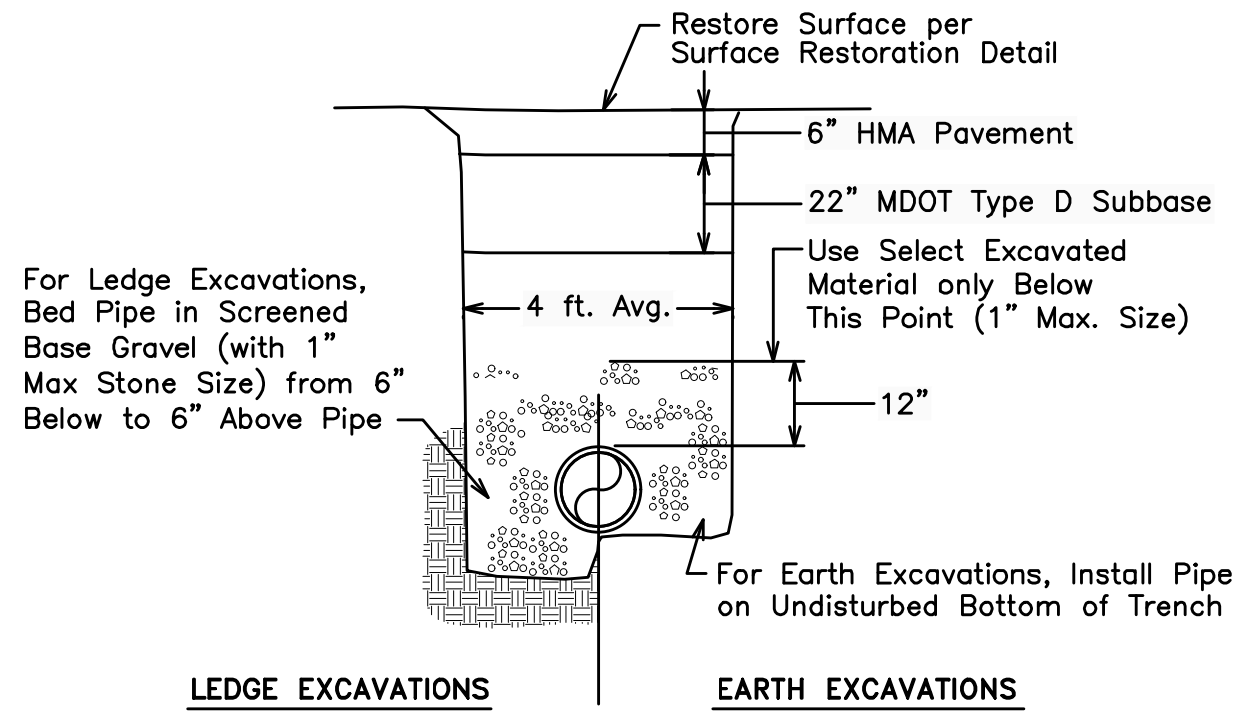


SOUTH STREET PROFILE

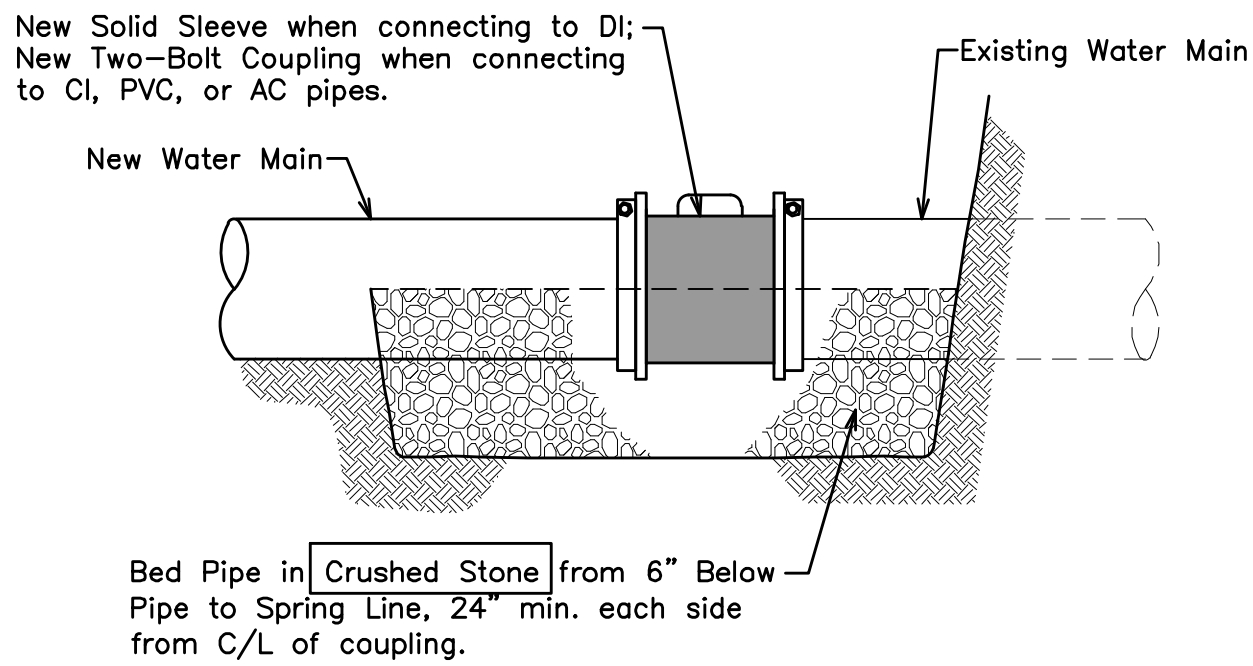
EAST MAIN STREET PROFILE

DOVER-FOXCROFT WATER DISTRICT DOVER-FOXCROFT, MAINE			
DOVER-FOXCROFT ROUTE #7/#15 INTERSECTION SAFETY IMPROVEMENTS MAINE DOT PROJECT #25329			
SITE LOCATION, GENERAL NOTES, LEGEND, PLAN, & PROFILES			
REVISED PLAN		VERT. DATUM	NAVD88
		DATE:	5/15/24
		DRAWN BY:	ASD/JAB
		CHECKED:	ASD
		APPROVED:	RSP
		FIELD BK:	#62
		FILE: H 0010 MA 0010 MA 0010 MA 0010 MA	
		PROJECT:	16823
DRIGO ENGINEERING 2 DIRIGO DRIVE, FAIRFIELD, MAINE 04837 (207) 453-2401			SHEET 1 OF 2

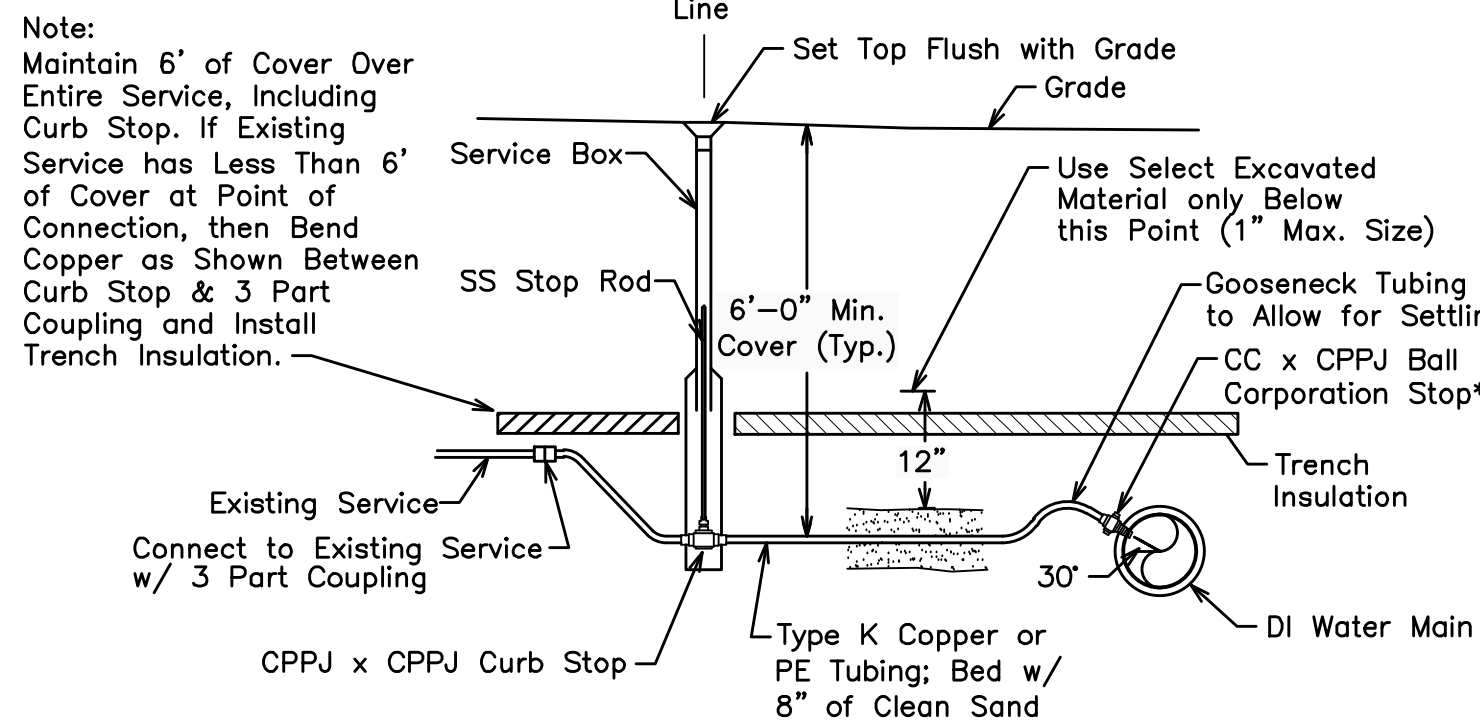
Note: On the Original Full-Scale Drawing, this dimension is 6"



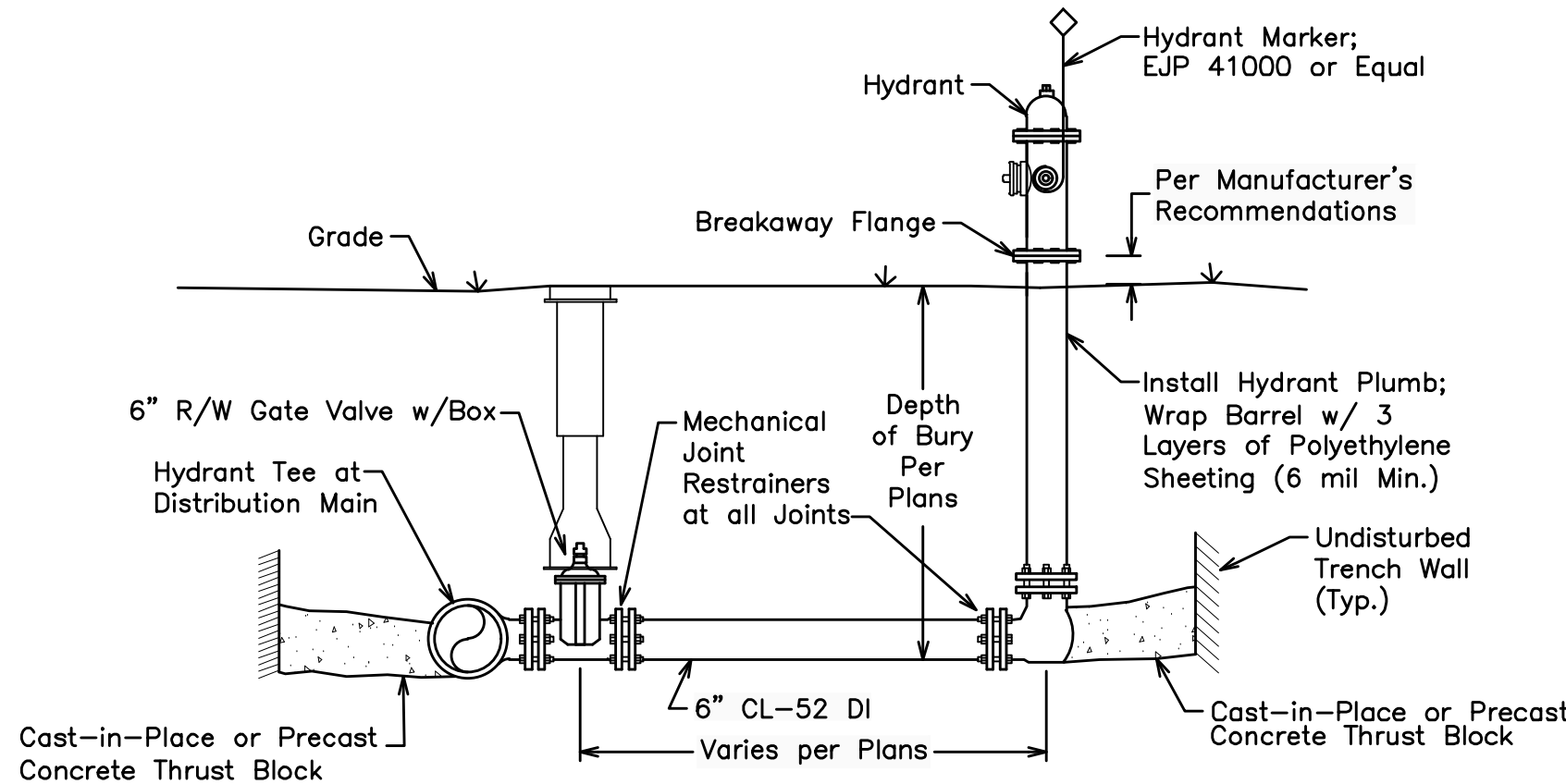
DUCTILE IRON TRENCH DETAIL
NOT TO SCALE



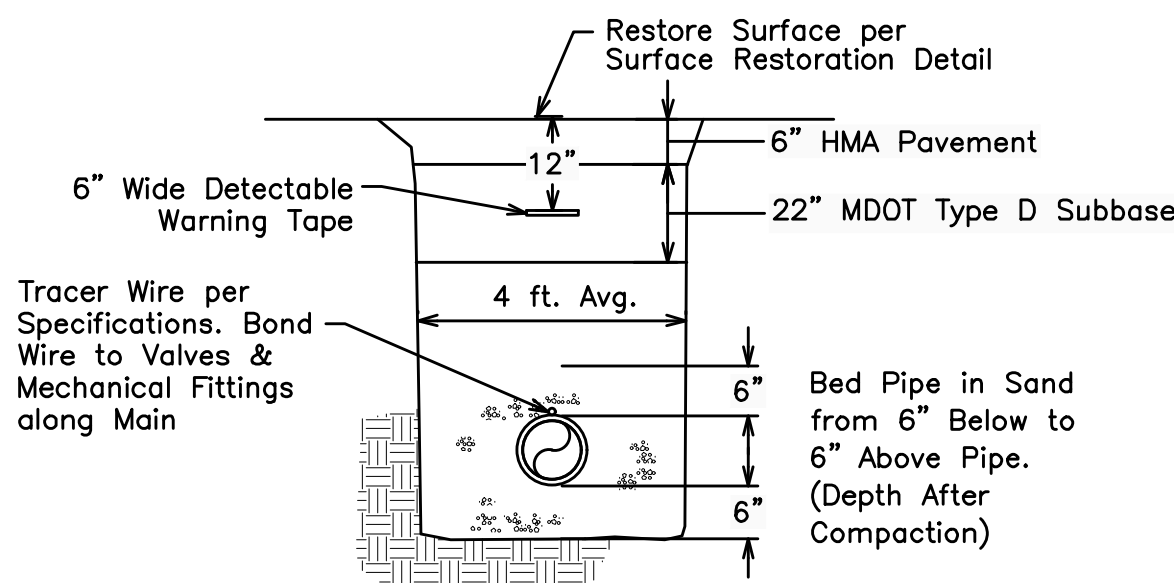
COUPLING/SOLID SLEEVE BEDDING DETAIL
NOT TO SCALE



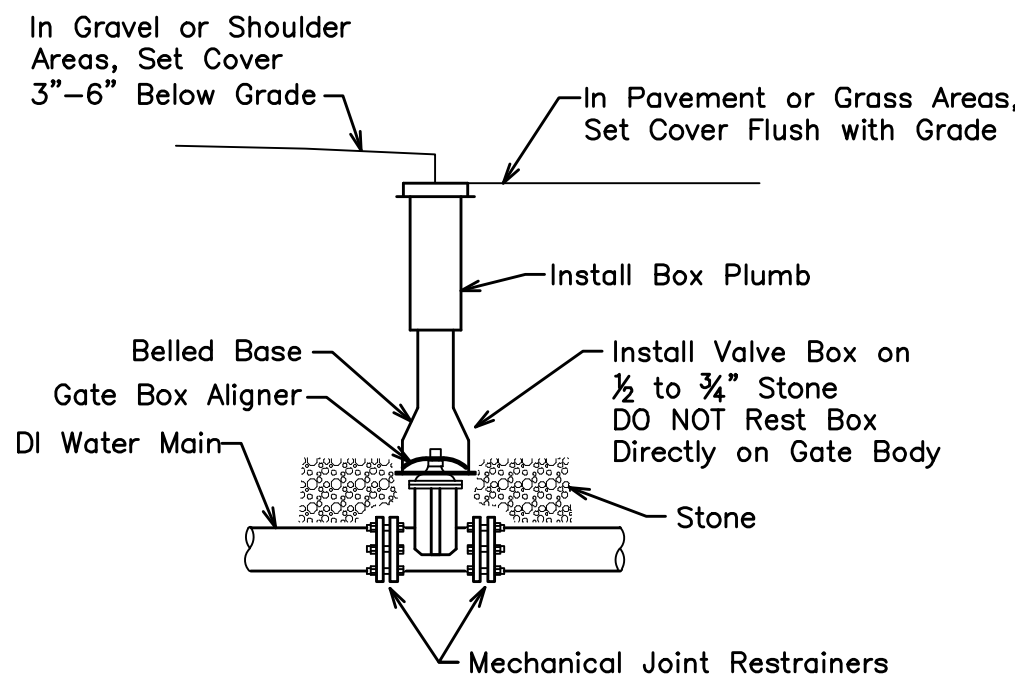
WATER SERVICE DETAIL
NOT TO SCALE



TYPICAL HYDRANT ASSEMBLY
NOT TO SCALE

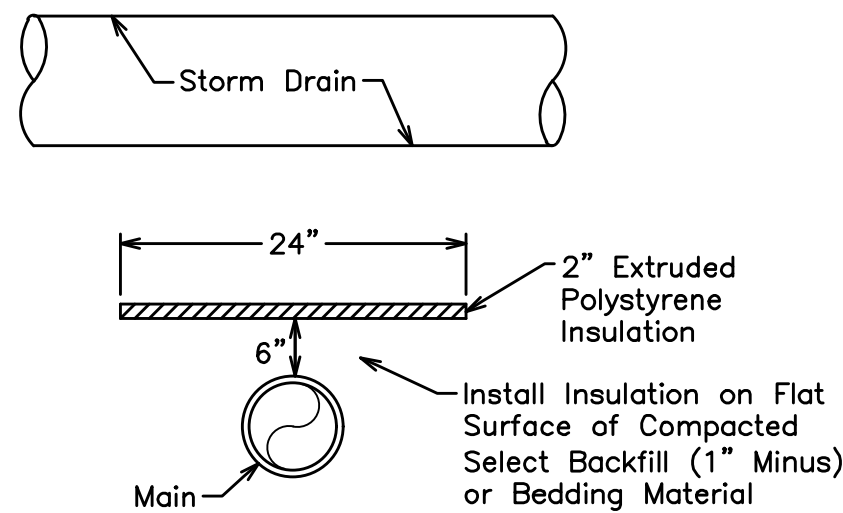


HDPE PIPE TRENCH DETAIL
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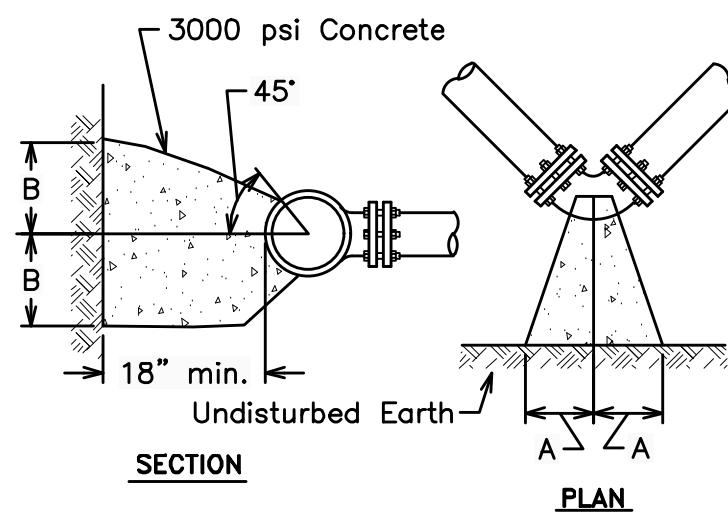
TYPICAL VALVE DETAIL
NOT TO SCALE

Note: Install Trench Insulation as Follows:
1. Where Cover over Main or Service is Less Than 5'.
2. At Storm Drain Crossings.



TRENCH INSULATION DETAIL
NOT TO SCALE

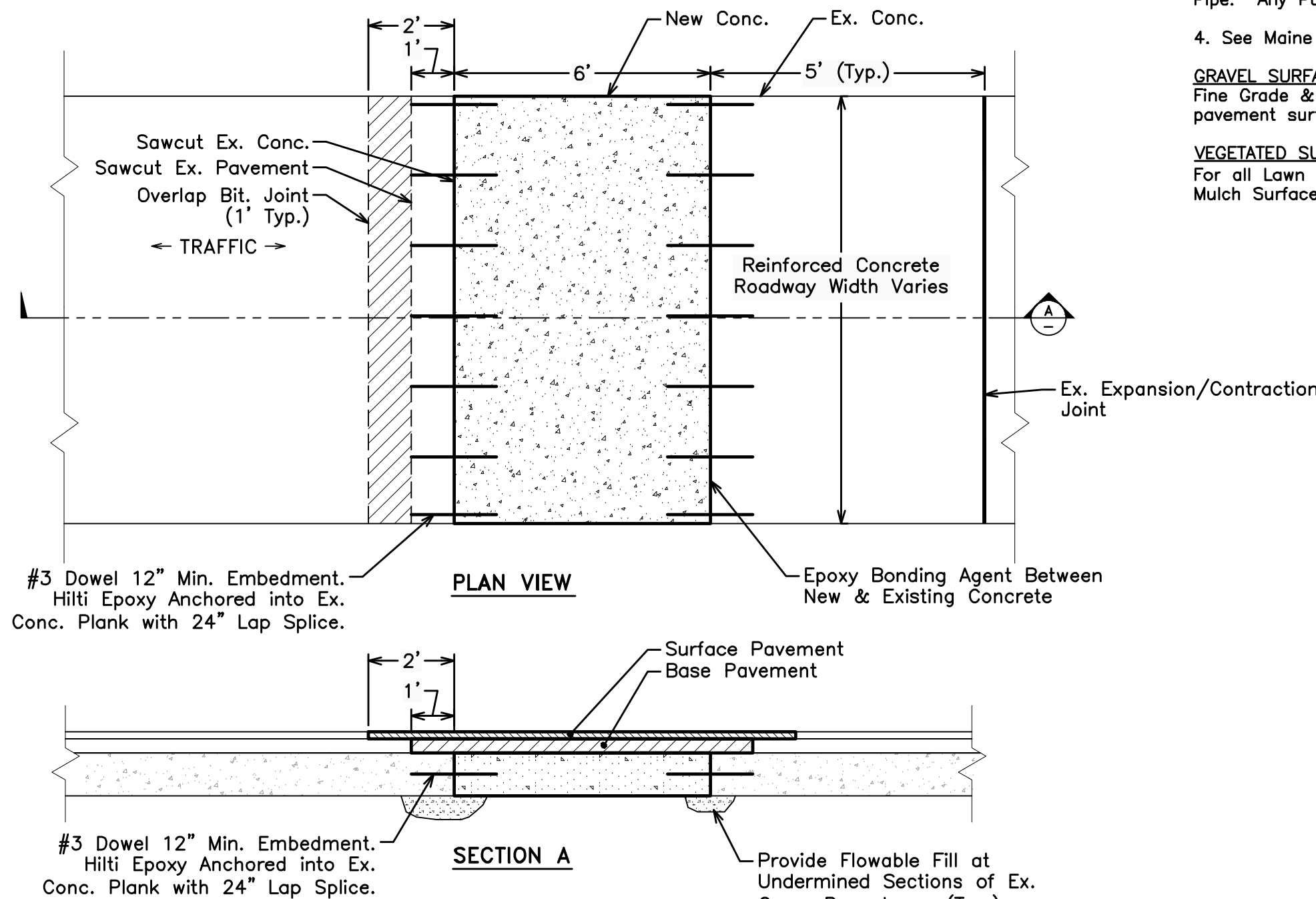
- Notes:
1. Thrust Blocks shall be installed to support all hydrants, tees, tapping sleeves, all 45° & 90° bends, plugs, and caps, etc.
 2. Polyethylene Sheeting (4 mil min. thickness) shall be installed between the thrust block and fitting.
 3. Precast thrust blocks equal to American Concrete #5375 may be substituted. Utilize compacted crushed stone over full bearing area to undisturbed earth.
 4. All Push-on Joints within 45° of tees, bends (22½° and over), caps, and plugs shall be restrained per specifications.



THRUST RESTRAINT DETAIL
NOT TO SCALE

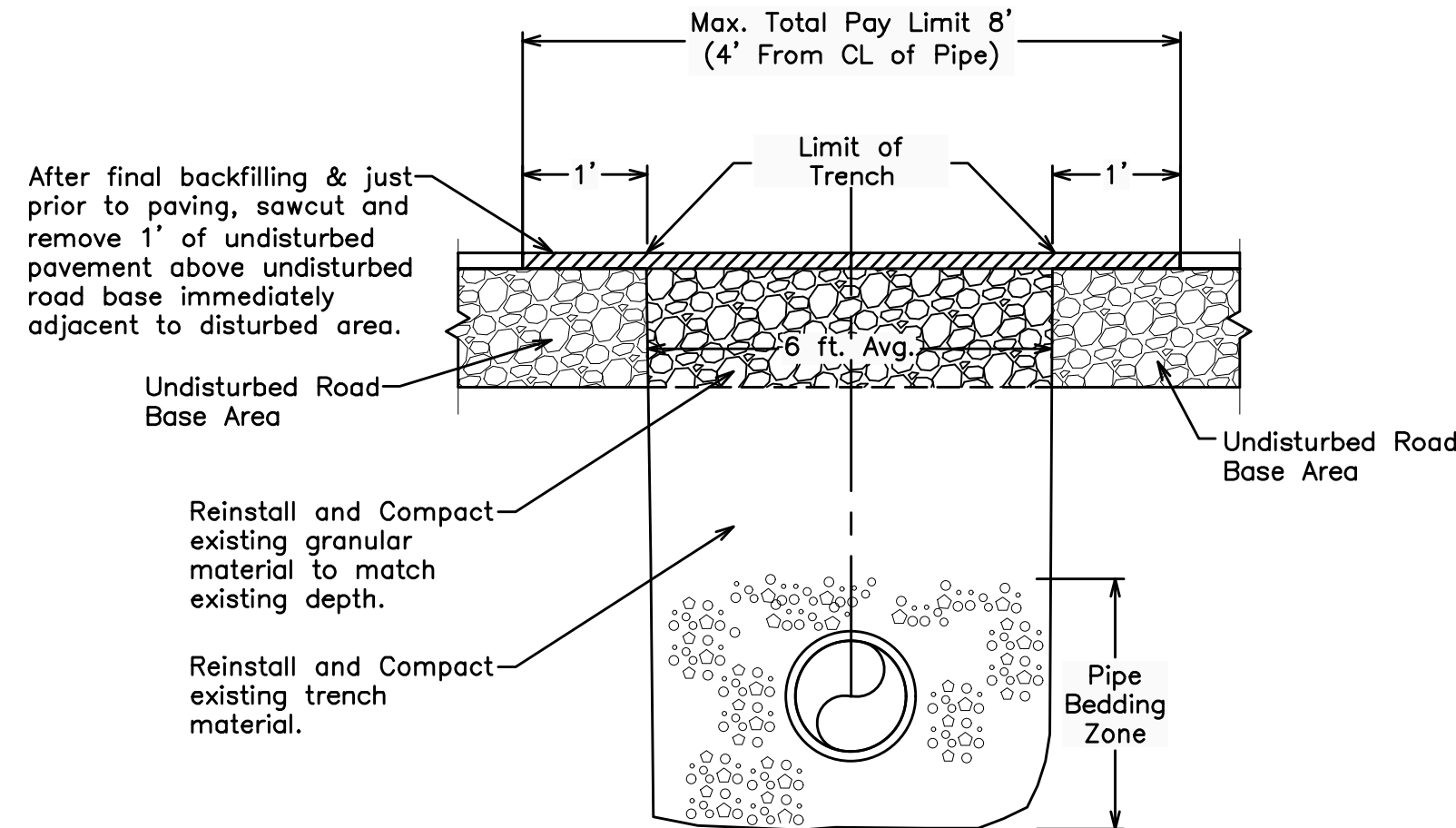
MINIMUM CAST IN PLACE THRUST BLOCK DIMENSIONS			
Pipe Dia.	FITTING	A	B
3"-8"	Dead End/Tee	12"	10"
	90° Bend	16"	12"
	22½-45° Bend	12"	10"
10"-12"	Dead End/Tee	18"	16"
	90° Bend	20"	18"
	22½-45° Bend	18"	16"

Double Dimensions When in Soft Clay



- NOTES:
1. Design intent is to replace existing concrete road base in kind and match existing dimensions, & thickness.
 2. The existing pavement and concrete road base materials shall be saw cut to full depth and removed as required to complete new utility installation. A diamond blade saw shall be required to induce a clean and neat cut of the existing concrete.
 3. Existing road aggregates and native sub soils shall be removed as required for new utility installation and kept segregated for replacement in-place and compacted to required field dimensions.
 4. Provide epoxy bonding agent between new and existing concrete surfaces.
 5. Concrete shall be 5000 psi, class LP approved MDOT mix design with accelerator admixture to provide a minimum 3000 psi concrete strength for succeeding paving and traffic.
 6. Concrete shall be cured a minimum of 24 hours by either moisture cured with water and poly/burlap cover or applicable dissipating curing compound meeting ASTM C309, AASHTO M 148, equal to Harris Emulsion Kurseal 309.
 7. Test Specimens shall be coordinated to verify minimum 3000 psi concrete strength for application of bituminous pavement and traffic loads.
 8. Pavement shall be completed in accordance with MDOT standards and as shown on details.
 9. This detail is applicable for concrete road base repair sections with no expansion/contraction joints. Provide minimum 5'-0" offset between sawcut joints for pipe crossings and existing expansion/contraction joints.

CONCRETE ROAD REPAIR DETAIL
NOT TO SCALE



- EXCAVATION & BACKFILL NOTES:**
1. Prior to any excavation in paved areas, Contractor shall sawcut areas to be excavated in neat straight lines.
 2. During excavation, separate the existing gravel layer from the common excavation below. Reuse original excavated materials during backfilling, if compactable, in the order that they were removed.
 3. Backfill within the pipe bedding zone shall be per Contract Documents and Trench Details.
 4. Above the pipe bedding zone and below the road gravel zone, backfill material shall match surrounding soils and shall be placed and compacted in lifts not to exceed one foot.
 5. Excavated material with too much water content to compact effectively shall not be used for backfill.

PAVED SURFACE RESTORATION (OUTSIDE MAINE DOT WORK LIMITS):

1. Pavement replacement shall be per the Minimum Pavement Thickness table.
2. The final sawcutting of pavement shall be performed after backfilling and compaction to the top of the existing gravel base is complete. After sawcutting and removing the additional one foot of pavement, the entire exposed gravel layer shall be once again compacted, including the undisturbed gravel portion, prior to paving.
3. The Pavement Pay Limit Shall be 3' Each Side of the Centerline of the Pipe plus the 1' Saw cut Area Beyond the Trench Limits for a Total Maximum Pavement Pay Limit of 4' Each Side of the Centerline of the Pipe. Any Pavement beyond the 3' Limit and the 1' Sawcut area shall be replaced at the Contractor's Expense.
4. See Maine DOT pay items for work inside Maine DOT project limits.

GRAVEL SURFACE RESTORATION:
Fine Grade & Compact Gravel Surface; Install Compacted Crushed Gravel Shim at Edge of Pavement to match pavement surface and pre-construction slope.

VEGETATED SURFACE RESTORATION:
For all Lawn Areas Disturbed and Other Areas Designated on Plans, Restore Surface with 4" of Loam; Seed & Mulch Surface of Loam.

BACKFILL & SURFACE RESTORATION DETAIL
NOT TO SCALE

Pavement Thickness Requirements				
MDOT Pavement Type	MDOT Travel Lane & Shoulders	Town Roads	Driveways	Sidewalks
9.5mm	—	—	—	2"
12.5mm	6"	3.5"	3.5"	—

Note: Surface Pavement shall be machine placed.

ADDED CONCRETE CORE AND INFO TO PLANS & CONC. REPAIR DETAIL		10/10/24	DOVER-FOXCROFT WATER DISTRICT	
NO.	REVISIONS	DATE	DOVER-FOXCROFT, MAINE	
BID SET	VERT. DATUM	NAVDB8	DOVER-FOXCROFT ROUTE #7/#15 INTERSECTION	
	DATE:	5/15/24	SAFETY IMPROVEMENTS	
	DRAWN BY:	ASD/JAB	MAINE DOT PROJECT #25329	
	CHECKED:	ASD	MISCELLANEOUS DETAILS	
	APPROVED:	RSP		
	FIELD BK:	#62		
	FILE: 11 200 111 001 111 001 111 001 111 001			
PROJECT:		16B23		

DIRIGO ENGINEERING
2 DIRIGO DRIVE, FAIRFIELD, MAINE 04937 (207) 453-2401

SHEET
2 OF 2

Note: On the Original Full-Scale Drawing, this dimension is 6"